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# Kasha-Katuwe Tent Rocks National Monument

Record of Decision & Resource Management Plan

June 2007





The Bureau of Land Management  
sustains the health, diversity, and productivity  
of the public lands for the use and enjoyment of  
present and future generations.

BLM/NM/PL-07-04-1610



## ERRATA SHEET

On page 1-8: All of the section titled “DECISIONS APPEALABLE AT RECORD OF DECISION SIGNING” is incorrect and should be replaced as follows:

### **DECISIONS**

Land Use Planning Decisions made through this Resource Management Plan became effective upon the signing of the Record of Decision.

Implementation Decisions made through this Resource Management Plan are appealable prior to their implementation by BLM. They may be appealed under the Department of Interior’s appeal regulations (43 CFR Part 4). The Implementation Decisions are identified in Chapter 2 of this ROD RMP, with additional information in Table 4-1.

Any party adversely affected by implementation of the Implementation Decisions may appeal within 30 days of receipt of this Decision in accordance with the provisions of 43 CFR Part 4.4. Publication of the Notice of Availability for the ROD/RMP by the Environmental Protection Agency (EPA) in the Federal Register will be considered the date of receipt of this Decision.

On page 4-3: In the section titled “**PLAN DECISIONS**” the last sentence in the first paragraph which reads “These decisions are listed in the last section of Chapter 1.” should be deleted.

SEE SUPPLEMENTAL ERRATA SHEET 2  
IN BACK POCKET



# THEORY

1. The first part of the theory is the definition of the terms used in the theory.

2. The second part of the theory is the definition of the terms used in the theory.

3. The third part of the theory is the definition of the terms used in the theory.

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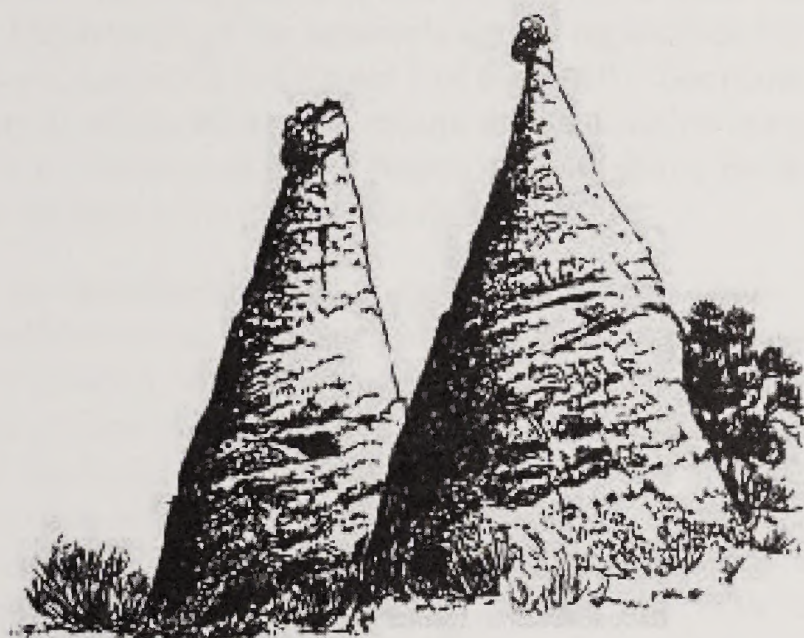
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# **Kasha-Katuwe Tent Rocks National Monument**

## **Record of Decision and Resource Management Plan**



June 2007

United States Department of the Interior  
Bureau of Land Management  
Albuquerque District  
Rio Puerco Field Office  
in cooperation with the  
Pueblo de Cochiti









# United States Department of the Interior

## BUREAU OF LAND MANAGEMENT

Rio Puerco Field Office

435 Montaña Rd. NE

Albuquerque, New Mexico 87107-4935

[www.nm.blm.gov](http://www.nm.blm.gov)



IN REPLY REFER TO:  
1610 (100)

June 2007

Dear Reader:

I am pleased to announce the completion of the Kasha-Katuwe Tent Rocks Resource Management Plan (RMP). This document will provide guidance for management of the public lands in Kasha-Katuwe Tent Rocks National Monument and Planning Area in north-central New Mexico for the next 15 to 20 years.

The attached Record of Decision (ROD) approves both land use planning decisions and implementation decisions for management of the Monument. The ROD serves as the final decision for the land use planning decisions described in the attached Approved RMP, and these decisions became effective on the date the ROD was signed. However, some of the decisions are implementation-level decisions and require no further authorization requiring public involvement prior to their taking effect. Therefore, they may be appealed under the Department of the Interior's appeal regulations (43 CFR Part 4). Any party adversely affected by the decisions listed in Chapter 1 of the RMP ("Decisions Appealable At Record of Decision Signing") may appeal within 30 days of receipt of this decision in accordance with the provisions of 43 CFR Part 4.4. Publication of the Notice of Availability for the ROD/RMP in the Federal Register will be considered the date of receipt of this decision.

The decisions contained in the document may soon apply to additional lands. The 521-acre State of New Mexico inholding within the Monument boundaries is included in an exchange with the State targeted for completion during 2007. In addition, we are pursuing purchase of private inholdings from willing sellers and are optimistic that some of these inholdings can be acquired in the near future. Also, since completion of the Proposed Kasha-Katuwe Tent Rocks National Monument Proposed RMP and Final Environmental Impact Statement in October of 2006, the 9,268-acre parcel referred to in this document as the "North Edgeholding" changed from private to State ownership. In accordance with decisions made in this RMP, we will seek to acquire this parcel in a future land exchange with the State.

The RMP is the result of extensive collaboration among State, tribal, and local governments, other Federal agencies, organizations, and members of the public. Public involvement in management of the Monument does not end with completion of the RMP. As projects that are subject to further planning are considered, the public will be given the opportunity to be involved in project-level planning and review. In addition, the Rio Puerco Field Office has an active volunteer program. There will be numerous opportunities for volunteers as the Kasha-Katuwe Tent Rocks Resource Management Plan is implemented. Contact the Field Office at (505) 761-8700 for information about the volunteer program.

We appreciate your participation in this planning effort and look forward to your continued participation as the plan is implemented. To obtain additional printed copies or CD-ROM versions of the ROD/RMP, contact the Rio Puerco Field Office at the address above. The document will also be available on the internet at [www.nm.blm.gov](http://www.nm.blm.gov).

Sincerely,

Rio Puerco Field Manager







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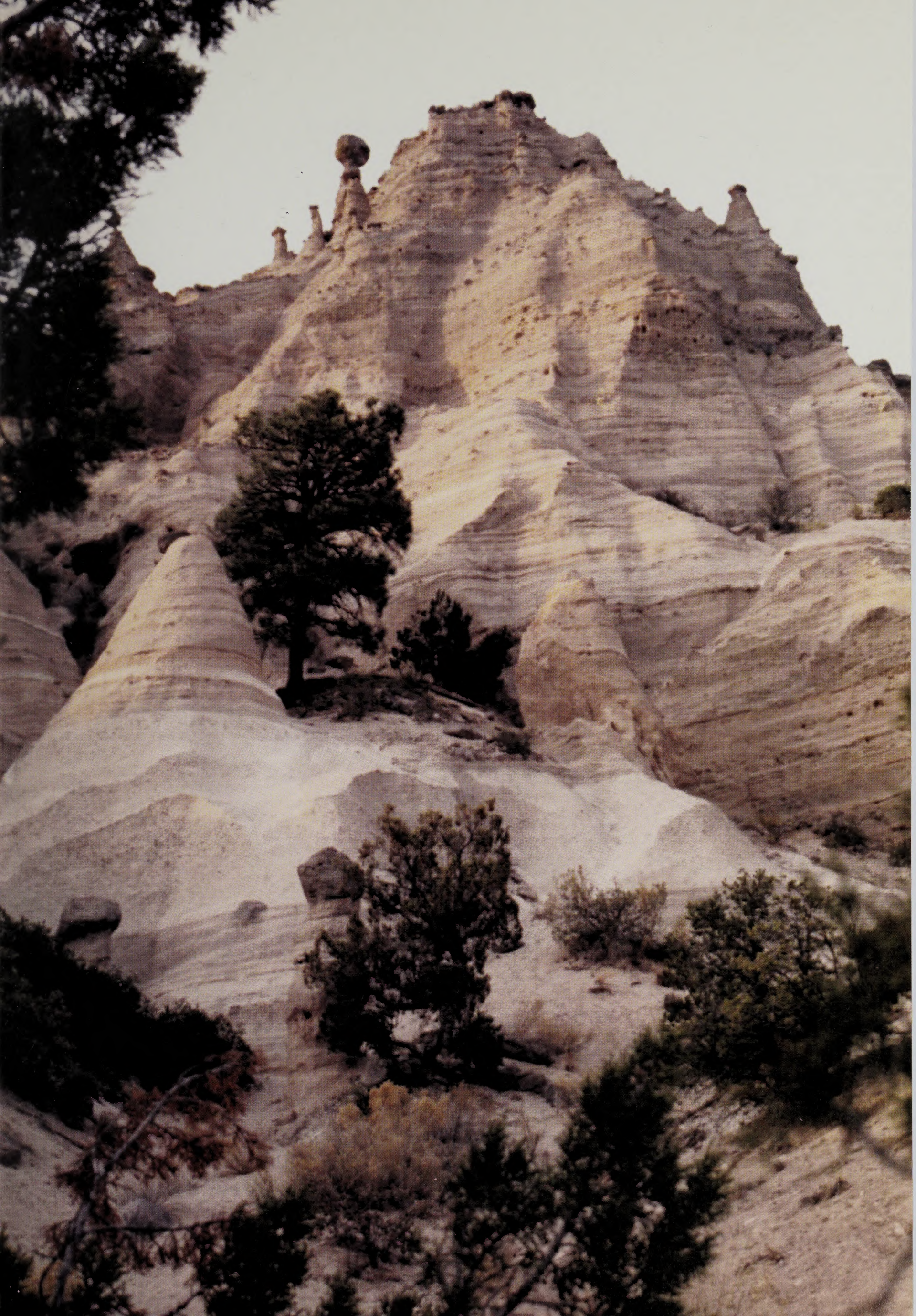
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**RECORD OF DECISION (ROD)**  
**FOR KASHA-KATUWE TENT ROCKS NATIONAL MONUMENT**  
**RESOURCE MANAGEMENT PLAN**  
**United States Department of the Interior, Bureau of Land Management**  
**Albuquerque District, Rio Puerco Field Office**  
**In Cooperation with the Pueblo de Cochiti**

## **INTRODUCTION**

This volume includes a Record of Decision (ROD) and a Resource Management Plan (RMP) for Kasha-Katuwe Tent Rocks National Monument (KKTR). The decision has been reached by managers of the Bureau of Land Management (BLM) to select the Proposed Plan of the October 2006 Proposed RMP and Final Environmental Impact Statement (Proposed RMP/Final EIS) as the RMP for managing the 5,402-acre Monument and an additional 10,233 acres of adjoining lands. The adjoining lands contain resources that complement the resource values of the Monument. The BLM has recently acquired the adjoining 965-acre "Southwest Acquisition." Acquisition of the adjoining 9,268-acre "North Edgeholding," as well as the remaining 1,278 acres of non-Federal land within the Monument boundaries, from willing sellers would contribute to effective and efficient Monument management. The entire Planning Area includes 15,635 acres; however, RMP implementation can only take place on the 5,089 acres of public land within the Planning Area. Decisions in this document are applicable to lands acquired within the Planning Area or lands covered by cooperative management agreements with non-Federal landowners.

## **DECISION**

The decision is hereby made to approve the attached plan as the resource management plan for Kasha-Katuwe Tent Rocks National Monument and Planning Area. It is the Proposed Action (Alternative B) of the Proposed RMP/Final EIS of October 2006, with changes only to accommodate the stand-alone format of the attached RMP. This RMP was prepared under the regulations implementing the Federal Land Policy and Management Act (FLPMA) of 1976 (43 CFR

1600). The EIS was prepared in accordance with the National Environmental Policy Act of 1969 (NEPA) to assess the effects of implementing the RMP. Specific management decisions for public lands under the jurisdiction of the Rio Puerco Field Office are presented in Chapter 2, "Management Decisions," of the attached RMP. Key approved decisions include the following:

**Land Tenure Adjustment** identifies lands for acquisition or for other management options.

- Continue to acquire land and easements within the Planning Area, protect the resources for which the Monument was established, and ensure that any rights-of-way or land use permits issued are consistent with management goals for other resource programs and uses.
- The Monument is subject to valid existing rights.
- Nothing in the Proclamation revokes any existing withdrawal, reservation, or appropriation; however, the Monument is the dominant reservation.
- No person may use, injure, destroy, or remove any feature of the Monument without authorization, nor locate nor settle upon any of the lands.
- If willing sellers are available in the long term, the BLM will seek to acquire through exchange or purchase the 1,278 acres of non-Federal land within the Monument and the 9,268-acre North Edgeholding to complement management of Monument values.
- Seek Cooperative Management Agreements with non-Federal landowners to provide for some level of public use if acquisition is not possible.
- The Federal government owns 4,565 acres of minerals beneath the Monument. This



acreage has been withdrawn from mineral entry by conditions of the Proclamation.

- The 837 acres (521 acres State, 316 acres private) of non-Federal mineral ownership in the Monument will be acquired if owners are willing. As other minerals are acquired within the Monument, they will also be withdrawn from mineral entry under the Proclamation.
- All minerals under the 965-acre Southwest Acquisition are in Federal ownership. The North Edgeholding (9,268 acres) has split mineral ownership, with gold, silver, and quicksilver/mercury in Federal ownership and all other minerals in non-Federal ownership. The BLM will seek to acquire these mineral rights along with the surface. The BLM will withdraw all Federal minerals within the Planning Area, subject to valid existing rights.
- The 5,402 acres designated by Presidential Proclamation 7394 as the National Monument will continue to be designated as an Area of Critical Environmental Concern (ACEC).
- The Monument/ACEC will be managed for Proclamation and ACEC resource values. Management emphasis for the area will continue to be on the interpretation of geologic and scenic values, and on intensive recreational uses, especially semi-primitive non-motorized recreation opportunities.
- The 965-acre Southwest Acquisition recently purchased by the BLM will be managed in conjunction with the Monument, and is recommended for inclusion as part of the Monument (which would require Congressional legislation).
- Lands and interests in lands acquired within the Monument boundary will become part of the Monument and ACEC. These will be withdrawn from entry or disposal except by exchange, as provided in the Proclamation.
- If acquired, the 9,268-acre North Edgeholding is recommended for inclusion in the Monument (which would require Congressional legislation).
- If acquisitions within the Monument boundaries are not completed, the BLM will seek to acquire a 1.05-mile easement on the

portion of BLM Road 1011 that crosses private surface through the Monument.

- While recognizing valid existing rights, the BLM will consider the Planning Area to be a right-of-way exclusion area. Rights-of-way for uses that do not currently exist will not be considered except for those that would support Monument purposes.

**Access and Transportation** identifies BLM vehicle routes and hiking/equestrian trails and limits motorized and mechanized use to designated roads and trails.

- Designate 5.95 miles of "Open" transportation routes, 7.8 miles as "Limited" to authorized administrative and emergency use only, and close 11.5 miles of roads.
- Designate 6.33 miles of "Open" trails, 0.2 mile of trail as limited to authorized administrative or emergency use, and close 1.9 miles of trails to public use.
- Designate 0.9 mile of new trail "Open" and 0.7 mile of converted road to "Open" trail.
- Designate the Planning Area as limited to designated roads and trails for motorized and mechanized modes of travel.
- Access for research permits will be considered as authorized administrative use and will be reviewed on a case-by-case basis.
- If the North Edgeholding is acquired, close the area to public entry except access on existing public roads or with prior authorization from the Rio Puerco Field Manager. Allow a two-year period of resource survey and evaluation before making land and resource allocations. Provide guided tours in the interim. After consulting with potentially affected American Indian tribes, carrying out resource data inventory, including assessment of cultural resources, and after implementing measures to mitigate potential adverse effects to cultural resources and other resources, open the area with appropriate restrictions.

**Recreational Uses** will be managed using adequate facilities to minimize resource degradation.



- Provide a broad spectrum of resource-dependent recreational opportunities to meet public needs and demands.
- Maintain high-quality recreation facilities to meet public needs and enhance the image of the agency.
- The Recreation Opportunity Spectrum system divides the area into three visitor experience zones—semi-primitive motorized use (2,048 acres), semi-primitive non-motorized use (1,054 acres), and roaded natural use (1,987 acres).
- The designation of the Planning Area is “OHV use limited to designated roads and trails” for motorized and mechanized modes of travel.
- Allow mountain bikes and limited forms of motorized vehicles (except all-terrain vehicles and dirt bikes) on BLM Road 1011 through the Planning Area when the road is open to public use.
- Authorize equestrian use on a case-by-case basis and direct to Federal lands in the Monument and Southwest Acquisition that are south and west of BLM Road 1011.
- Build new facilities, including hard-surfacing 5.9 miles of BLM Road 1011, as needed for resource protection, and visitor health, safety and convenience.
- Make drinking water available for visitors in or near the Monument.
- Designate Federal lands within the Planning Area (including any acquired lands) as a Special Recreation Management Area.

**Ecosystem Restoration** identifies actions that will benefit land health and Monument resource values.

- Ensure that proposed land uses avoid inadvertent damage to Federal and non-Federal cultural resources.
- No person may use, injure, destroy, or remove any feature of this Monument without authorization, nor locate nor settle upon any of the lands.
- More stringent inventory requirements will be in effect, with larger buffers and Class III inventory, in all questionable cases.

- Inventory for cultural resources 0.65 mile of “open” roads and 7.8 miles of roads limited to authorized administrative and emergency use only before further maintenance is done.
- The 11.5 miles of “closed” roads will be inventoried for cultural resources if rehabilitation is needed following closure.
- 1.72 miles of “closed” trails will be inventoried for cultural resources if rehabilitation is needed following closure.
- Address the secondary effects of recreational use on cultural resources by requiring inventory of expanded buffer areas around recreational developments. Inventories for parking areas, scenic viewing areas, picnic areas, and similar developments will include a minimum 100-meter-wide buffer.
- For hiking trails, a minimum 30-meter-wide buffer will be inventoried on each side of the trail, resulting in examination of a 60-meter-wide corridor.
- Inventory of the 6.32 miles of “open” and “limited” trails that have not yet been inventoried will be completed by the end of September 2008.
- Vegetation treatments in sensitive settings will be subject to Class III inventory if the use of fire or any form of surface disturbance is proposed, including vehicle use off road and dragging of slash.
- If lands containing water wells are acquired, the BLM will perform cultural resource inventories to ensure that no damage occurs in association with well use or maintenance.
- Discourage activities that involve excavation or collection of cultural materials. Such activities will ordinarily be considered only when such materials face an immediate threat.
- Archeological resources within the Monument and Southwest Acquisition will be available for scientific study that does not involve excavation or collection of cultural materials. Exceptions to this policy will be made only after extensive consultation with all concerned American Indian tribes.
- Apply mechanical fuel reduction and prescribed fire where applicable around vulnerable recreational facilities and prehistoric



and historic cultural resources to avoid or reduce the probability of damage from wild-land fire.

- Manage the Planning Area to treat Fire Regime Condition Class II and Class III lands to move their condition toward Class I.
- Kasha-Katuwe Tent Rocks National Monument is a separate Fire Management Unit (FMU). The Planning Area will be managed as FMU B/4.
- The Appropriate Management Response (AMR) for FMU B/4 is to prevent wildland fires from spreading to private lands, cultural resources or improvements on BLM lands, other agencies' lands, and to protect the public users. AMR will be used to manage all fires in accordance with management objectives based on current conditions and fire location.
- Comply with the NM Standards for Public Land Health in implementing fire management treatments.
- Discontinue livestock grazing use on the 4,088 acres of Federal land currently under two Federal grazing permits within the Monument.
- Acreage closed to grazing will be fenced and range developments removed if they are not converted to another purpose (e.g., wildlife waters, recreational uses).
- Short-duration grazing on Federal land within the Planning Area may be allowed under a non-renewable grazing permit if the BLM determines it will advance the purposes of the Proclamation.
- Privately owned range improvements will be removed by the permittee or purchased by the BLM, at fair market value, if they can be converted to other uses.
- No grazing permit will be issued for the 965-acre Southwest Acquisition, unless the BLM determines that short-duration grazing would help to achieve specific vegetative or ecological objectives.
- Monitoring and a vigorous integrated weed management program will be a part of Planning Area management (including on acquired land), in accordance with Standard Operating Procedures found in Instruction Memorandum NM-010-99-01 ("Noxious

Weed Prevention Schedule for Albuquerque Field Office").

- Emphasize noxious weed identification and treatment in the 241-acre intensive visitor use area to reduce weed introduction by recreation users.
- No person may use, injure, destroy, or remove any fossils—invertebrate and vertebrate fossils, and plant fossils.
- Evaluate, manage, and protect any fossils identified on a case-by-case basis. Visitors will be encouraged to report fossil discoveries to the BLM.
- The New Mexico Standards for Public Land Health and Guidelines for Livestock Grazing Management are carried forward. These standards include: (1) the upland sites standard; (2) the biotic communities standard (including native, threatened, endangered, and special status species); and (3) the riparian sites standard.
- Conduct hydrologic studies and analysis, including appropriate stream flow monitoring of the channel to assess the potential of Peralta Canyon to support riparian habitat. A riparian monitoring plan for these actions has been developed.
- Pursue a more intense riparian restoration program if potential is shown. Cottonwood, willow, and other riparian species will be planted if riparian conditions develop. Riparian habitat will be expanded to the extent that potential is indicated.
- Ensure that BLM management actions and objectives are consistent with soil resource capabilities.
- Maintain or improve surface and ground water quality consistent with existing and anticipated uses and applicable State and Federal water quality standards.
- Provide for the physical and legal availability of water to facilitate authorized uses of the public lands.
- Assess physical water availability and quality for visitor use, acquire water rights (if needed), and ensure continued compliance with the Safe Drinking Water Act.
- The BLM's management goal for special geologic features is to protect these important, environmentally sensitive geologic re-



sources in their natural condition (subject to ecological processes), while allowing recreation, and scientific research and collection.

- Protect special geologic features on 167 acres of Federally owned Monument lands for visitor viewing and observation. Identified acquisitions could increase this area to 2,284 acres.
- No special status plant species have been identified within the Monument or Southwest Acquisition. Any plants located will be managed on a case-by-case basis. Consultation with the U.S. Fish and Wildlife Service for listed species will be carried out as required by the Endangered Species Act.
- Ensure that BLM activities that affect the habitat of candidate (and sensitive) species are carried out in a manner consistent with the objectives for those species.
- Where needed, vegetation and woodland treatments will consist of prescribed fire, mechanical methods, physical removal of excess vegetation, and chemical methods.
- Follow Best Management Practices for vegetation treatment methods. Some treatments may need to be combined with others for best results, and some areas may need to be treated repeatedly to achieve the desired results.
- In areas of intensive recreational use and along BLM Road 1011 through the Monument, VRM Class III has been assigned to the 1,202 acres that encompass the immediate foreground surrounding the developed facilities. On the Class III lands, only activities and structures that would attract attention but not dominate the view of the casual observer will be allowed. Any changes would borrow from the basic elements found in the natural features of the surrounding characteristic landscape.
- VRM Class II has been assigned to the remaining 3,887 acres of public lands, where the intent will be to retain the existing character of the landscape by keeping implementation actions from attracting attention.
- Promote awareness of wildlife values.

- Nothing in the Proclamation enlarges or diminishes the jurisdiction of the State of New Mexico over fish and wildlife management.

**American Indian Uses and Traditional Cultural Values** will be protected in the Monument and remain available for American Indian use.

- Developments and recreation management policies will be oriented, in part, toward discouraging visitor use in sensitive areas identified by American Indians.
- With appropriate advance notice, the BLM will consider brief, temporary closures of all or portions of the Monument and Southwest Acquisition to ensure privacy for traditional uses.
- Roads and trails will be minimized in traditional use areas by road and trail closures and relocations.
- The Pueblo de Cochiti will continue to be involved in management of the Monument and Planning Area through Cooperative Management Agreements. The Pueblo will continue to have close day-to-day participation in managing the Monument.

This ROD serves as the final decision establishing the land use plan decisions outlined in the attached Approved Plan and is effective on the date it is signed.

## **ALTERNATIVES**

### **Alternatives Considered But Not Analyzed In Detail**

The BLM considered two management strategies that were eliminated from detailed consideration in the planning process.

The BLM considered leaving the area as a pristine and peaceful environment. This alternative would require the removal of existing facilities and the restriction of visitor use in an attempt to return the area to a pristine appearance and provide a peaceful environment. This alternative



would not be feasible or prudent since the Federal government has already made a substantial investment in providing facilities and services to accommodate public use, visitor health and safety, and resource protection. In addition, this alternative is not consistent with Presidential Proclamation 7394. Therefore, this alternative was dismissed from further consideration.

The BLM also considered maximizing recreational use of the Monument. Emphasizing recreation over protection of the biological, scientific, and historical objects of interest within the Monument boundaries would not be a reasonable alternative. Such use would lead to increased recreational visits and user conflicts throughout the Monument, which would in turn lead to additional impacts on the resources for which the Monument was designated. These resources would not be protected as required by Presidential Proclamation 7394 if recreational use of the Monument were maximized. Therefore, this alternative was also dismissed from further consideration.

### **Alternatives Considered in the EIS**

Three alternatives, including a No Action Alternative, were analyzed in detail in the Draft RMP/EIS (USDI, BLM 2005a) and in the Proposed RMP/Final EIS (USDI, BLM 2006). The alternatives were developed to address the planning issues and to provide direction for resource programs influencing management of the Monument. Each of the three alternatives presented a different blend or balance of resource allocations, uses, and protection.

Alternative A was the **No Action Alternative**, representing continuation of the existing management plans, policies, and decisions established in the 1986 Rio Puerco RMP (USDI, BLM 1986), as amended, and as implemented through the Tent Rocks ACEC Protection Plan (USDI, BLM 1987), that are in compliance with the Proclamation. Alternative A also served as the baseline for comparison with the other two alternatives.

Alternative B was the BLM's **Proposed Action**. Under this alternative, the agency's focus would

be to make resource allocations that would resolve the resource use issues and management concerns associated with the Monument and Planning Area, while complying with the Proclamation and current BLM policies, initiatives, and guidance. This alternative was also the **Environmentally Preferred Alternative**. It would provide facilities for intensive recreation use and enjoyment while protecting visitor health, safety, and natural resources. It would also provide for meeting land health standards, research and environmental education opportunities, and protecting American Indian uses and traditional cultural practices. It would result in few impacts that could not be fully mitigated and would provide the maximum public use of the outstanding Monument values without degradation of the natural resources and health of the land.

Alternative C emphasized an **Adaptive Management** approach (particularly for recreation management), with the inclusion of additional monitoring. Of the three alternatives, this alternative represented the highest accommodation of visitor access to and within the Monument and highest potential for facility development. It would require regular and specific monitoring of recreation use and natural resource conditions. The objectives of the monitoring and evaluation program would be to provide the basis for long-term adaptive management changes and ongoing planning. The monitoring results would trigger management changes to maximize recreational use, facility development, and visitors' beneficial experiences while minimizing resource degradation and depletion.

## **MANAGEMENT CONSIDERATIONS**

### **Rationale for the Decision**

The Proposed Action (now the RMP) provides an effective balance between protecting Monument resource values and providing opportunities for the public to observe, study, and enjoy those values. It is consistent with the BLM's policy guidance and requirements, including the multiple use and sustained yield mandates of the Federal Land Policy and Management Act (FLPMA) and the more recently established New Mexico Standards for Public Land Health



and Guidelines for Livestock Grazing Management (USDI, BLM 2000a). Implementation of the Proposed Action is expected to improve resource conditions and result in more consistent management of recreation and public access, as well as promote public safety and resource protection in Kasha-Katuwe Tent Rocks National Monument. The lack of facilities and access control under the No Action Alternative would have resulted in uncontrolled use and resource degradation. Although Alternative C proposed adaptive management for the protection of resource values and the dispersal of visitors, it would have also resulted in additional disruption of and intrusion on Cochiti traditional cultural uses. For these reasons, the Proposed Action has been selected as the RMP for the Monument.

## **MITIGATION MEASURES**

The BLM has developed Best Management Practices (BMPs; see Appendix C) designed to minimize surface disturbance and effects on resources and to improve resource conditions where disturbance has occurred. The BMPs are effective, practical ways of accomplishing the management goals and objectives of the BLM and will be used as a guide when preparing plans for individual projects. Individual projects may be subject to additional NEPA analysis and additional, project-specific mitigation measures.

## **PLAN MONITORING**

As outlined in the attached RMP, the BLM will monitor and evaluate management strategies and resource conditions and trends to determine the effectiveness of the RMP and to ensure that its implementation is achieving the desired results. Information on resource conditions obtained through monitoring will be used to assess the effectiveness of management strategies and evaluate whether or not management should be adapted to accommodate new information, changes in demands on resources, or other considerations. This is especially important for the riparian area monitoring that could lead to riparian area expansion if potential is demonstrated and to recreational use and resource condition monitoring which could lead to changes in al-

lowed visitor use if resource conditions are being degraded.

The BLM will monitor the Monument and Southwest Acquisition to quantify the number of recreational visits, types of recreational activities and use patterns, accomplishment of management objectives, and potential adverse impacts to resources and visitor experiences from use of the areas. The results of the monitoring will provide an opportunity to identify actions to protect resources, enhance visitor experiences, and deal with health and safety needs in the area.

The monitoring program will include such actions as:

- Patrolling roads, trails, and areas to observe recreation use where it is concentrated;
- Installing trail and road traffic counters and site registers;
- Establishing photo points in critical areas to monitor change; and
- Surveying visitors to better understand their values and expectations while using the area.

Monitoring will help the BLM to detect and document natural and human-induced changes in resource conditions and visitor experiences, and offer insights into the effectiveness of resource management policies and objectives. It will also help agency personnel understand what might be driving the changes requiring intervention (corrective management actions or strategies). Both the Monument and Southwest Acquisition are experiencing increasing use that is affecting resources, infrastructure, and management. Monitoring will be directed at areas in which specific and important resource values and visitor experiences could be threatened.

## **PUBLIC INVOLVEMENT**

### **Opportunities for Public Involvement in the Planning Process**

Throughout the planning process, the BLM used various means to inform the public about the RMP/EIS and solicit input. The public involvement process for this effort included the following:



- Notice of Intent (NOI)—Published in the *Federal Register* (Vol. 69, No. 14; Thursday, January 22, 2004; pp. 3167-3169). The notice announced the BLM's intent to prepare an RMP/EIS, and included information on the upcoming public scoping meetings, newsletter, availability of information on the BLM's website, points of contact, area description, and preliminary issues and criteria.
- Newsletter (February 4, 2004)—Mailed to about 230 individuals, organizations, and government officials who had expressed interest in the BLM's planning efforts. The newsletter invited public participation, provided information similar to that contained in the NOI, and supplied a self-addressed, postage-paid form for submitting written comments.
- Press Release (February 19, 2004)—Issued to 13 media contacts, announcing the dates, times, and locations of the scoping meetings.
- Website (made available on January 22, 2004)—The website provided information similar to that contained in the NOI and newsletter. The site was linked to another that offered information about the Monument itself.
- Public Scoping Meetings—Held in communities near the Monument on February 24 (Peña Blanca), February 25 (Rio Rancho), and February 26 (Santa Fe), 2004, from 6:00 to 8:00 p.m. Although no formal presentations were made nor notes kept, attendees were encouraged to write down their comments for the record. Each open house featured maps, resource information, comment forms, copies of the newsletter and Presidential Proclamation, and an interdisciplinary team of BLM resource specialists who provided information and answered questions. The BLM invited a representative of the Pueblo de Cochiti to attend these meetings. In addition to BLM representatives, seven individuals registered their attendance at the three meetings. One of those individuals, representing ConservAmerica, attended all three meetings.
- Scoping Comments—The BLM received 30 submissions from interested individuals or groups during the scoping period, which ended March 12, 2004. Most of the submissions contained constructive comments ranging in content from requests to be placed on the mailing list to multiple-paged comments with attachments. Commentors provided ideas for the Planning Team to consider in finalizing the planning criteria and formulating alternative ways of managing the Monument that would resolve resource use conflicts and define management decisions.
- Draft RMP/EIS Review—The public was given an opportunity to contribute to development of the Proposed RMP/Final EIS during the public comment period on the Draft RMP/EIS, which extended from November 4, 2005 to February 2, 2006. Copies of the Draft RMP/EIS were sent to a mailing list of 333 addresses, with an additional 76 copies sent to 22 Federal agencies. Additionally, the document was available for review on the BLM's website. The BLM received 16 comments during the 90-day public comment period. These submissions contained 48 substantive comments for which responses were prepared and published in the Proposed RMP/Final EIS. The BLM revised the document to address comments as appropriate.
- Governor's Consistency Review—A 60-day Governor's Consistency Review was initiated with the delivery of the printer-ready Proposed RMP/Final EIS to the Governor's Office on September 8, 2006. Printed copies were mailed to the Governor's Office and 17 other State agencies in early November 2006. No comments regarding potential inconsistencies with State and local plans, programs, and policies were received from the Governor's Office.
- Proposed Plan/Final EIS Protest Period—In accordance with 43 CFR 1610.5-2, a 30-day protest period (November 24, 2006 to December 26, 2006) followed publication of the Proposed Plan/Final EIS in October 2006. One letter was received during the protest period. After careful consideration of the points raised in this letter, the BLM Director concluded that the Planning Team



and decision makers followed all applicable laws, regulations, policies, and pertinent resource considerations in developing the Proposed Plan, and that the letter did not constitute an official protest. The BLM Field Manager contacted those who wrote the letter and addressed with them the concerns expressed in the letter. The reestablishment of communication has provided for the elimination of the concerns.

### **Cooperating Agency**

To provide for more consistent, effective, and collaborative management of the Federal and Pueblo lands within and adjacent to the area known as Tent Rocks, the U.S. Department of the Interior/BLM and the Pueblo de Cochiti entered into an Inter-Governmental Cooperative Agreement in 1997. This agreement was followed in 2002 by a five-year Assistance Agreement between the Pueblo de Cochiti and the BLM. A second five-year Assistance Agreement was signed in January 2007. Under these agreements, the BLM seeks the Pueblo's participation and involvement in public land use planning by personal invitation to agency activities and meetings. The Pueblo has agreed to identify and provide appropriate staff for planning and implementing the initiatives developed under the agreement.

Scoping for the RMP/EIS began in spring 2003 with a meeting of BLM staff from a variety of professional specialties (the "Interdisciplinary Team") to discuss resource needs, program requirements, and management concerns for the Planning Area. Soon after this initial meeting, the BLM held a pre-planning meeting with officials from the Pueblo in May 2003, to talk about the planning process, steps, and preliminary issues to be addressed in the plan. The BLM and the Pueblo de Cochiti met again in August 2003 regarding traditional cultural properties. Those in attendance at this meeting included Pueblo officials, Pueblo Council members, BLM managers, the KKTR Manager, and a Cultural Resource Specialist. The Pueblo has been a cooperating agency in the preparation of the RMP.

### **Tribal Consultation and Coordination**

The BLM mailed certified, return-receipt form letters to nine local pueblos and tribes. A separate, more detailed letter was sent to the Governor of the Pueblo de Cochiti. Through these letters, the BLM asked these groups to submit any concerns about traditional cultural practices or other issues that might be affected by this land use plan, information on how they would like to be involved in the planning process, and names of other individuals or organizations that should be notified or consulted concerning this plan. A copy of the NOI, a map of the Planning Area, and a brief description of the preliminary issues to be considered in the plan were enclosed with each of these 10 letters.

The BLM received two responses to this request, one from the Hopi Tribe and the other from the Jicarilla Apache Nation. The Jicarilla Nation did not request further involvement in the plan, but wished to be kept informed under the provisions of the Native American Graves Protection and Repatriation Act (NAGPRA). The Hopi Tribe expressed concern about the moral, spiritual, and financial responsibility on local pueblos for the disposition of any ancestral remains and cultural items discovered on ancestral lands as a result of this Federal undertaking. The Tribe also supported the road closures and travel restrictions proposed for the Monument to protect natural and cultural resources. The Hopi Tribe deferred to the Pueblos of Cochiti, Jemez, and Santo Domingo for identification of places of cultural importance. Additionally, the Hopi Tribe supported the rights of the local Pueblos to access and use areas under Executive Order 13007 and the American Indian Religious Freedom Act.

In addition to formal tribal consultation, the various documents were sent to nine other Indian tribes.

### **Agency Consultation**

The BLM must consult with the U.S. Fish and Wildlife Service under Section 7 of the



Endangered Species Act of 1973 before beginning any project that may affect any Federally listed, special status plant or wildlife species or its habitat. This Plan is considered to be a major Federal action, so the BLM initiated the informal consultation process. Letters documenting this consultation are contained in Appendix F. The BLM has made a "No Affect" determination for this RMP for all Federally listed species.

Under Section 106 of the National Historic Preservation Act of 1966, the BLM must consider the effects of its actions on sites eligible for the National Register of Historic Places before a decision is made. In New Mexico, the BLM complies with Section 106 through a Protocol Agreement between the BLM and the New Mexico State Historic Preservation Officer (SHPO) signed in June 2004. The BLM has submitted the various planning documents to the SHPO with no response.

Although the Pueblo de Cochiti was the only formal cooperating agency, and consultation was required legislatively only with the U.S. Fish and Wildlife Service and the New Mexico State Historic Preservation Officer, the BLM worked closely with many other agencies throughout the planning process. The New Mexico Governor's Office and affiliated State agencies have been involved and provided input into the Draft RMP/EIS and the Proposed RMP/Final EIS.

The Sandoval County Board of Commissioners has also been involved and kept up to date on the development of the RMP.

### **Public Participation in Implementation**

Land use plans and planning decisions are the basis for every on-the-ground action the BLM undertakes. They provide a framework to guide subsequent actions or plan implementation decisions. Implementation decisions are generally site-specific land management projects or actions designed to meet direction in the planning documents and decisions. Chapter 4, "Management Plan Implementation" of the attached RMP, identifies future implementation priorities, which of course, are dependent on funding levels. Each project will be subject to additional site-specific NEPA analysis and documentation, associated Native American consultation, and appropriate National Historic Preservation Act and Endangered Species Act compliance. As each project is considered, the public will be given the opportunity to be involved in project-level planning and review.

In addition to project planning and review as an opportunity for public participation, the Rio Puerco Field Office has an active volunteer program. There will be numerous opportunities for volunteers as the Kasha-Katuwe Tent Rocks Resource Management Plan is implemented.



## APPROVAL

I approve the attached plan as the resource management plan for Kasha-Katuwe Tent Rocks National Monument and Planning Area.

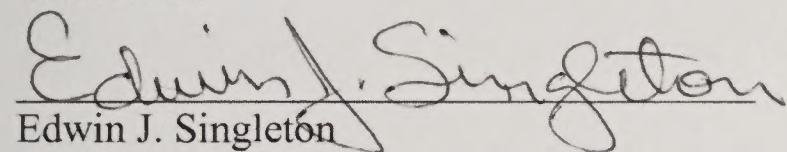
Recommended:



Thomas E. Gow  
Rio Puerco Field Office Manager

Date 10 May 2007

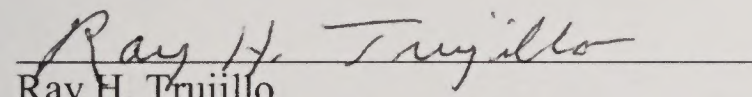
Concurred:



Edwin J. Singleton  
Albuquerque District Manager

Date May 10, 2007

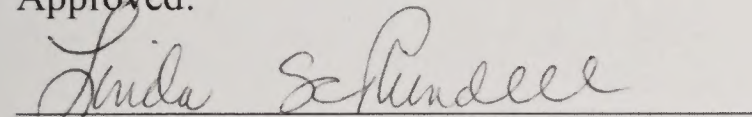
Concurred:



Ray H. Trujillo  
Governor, Pueblo de Cochiti

Date May 17, 2007

Approved:



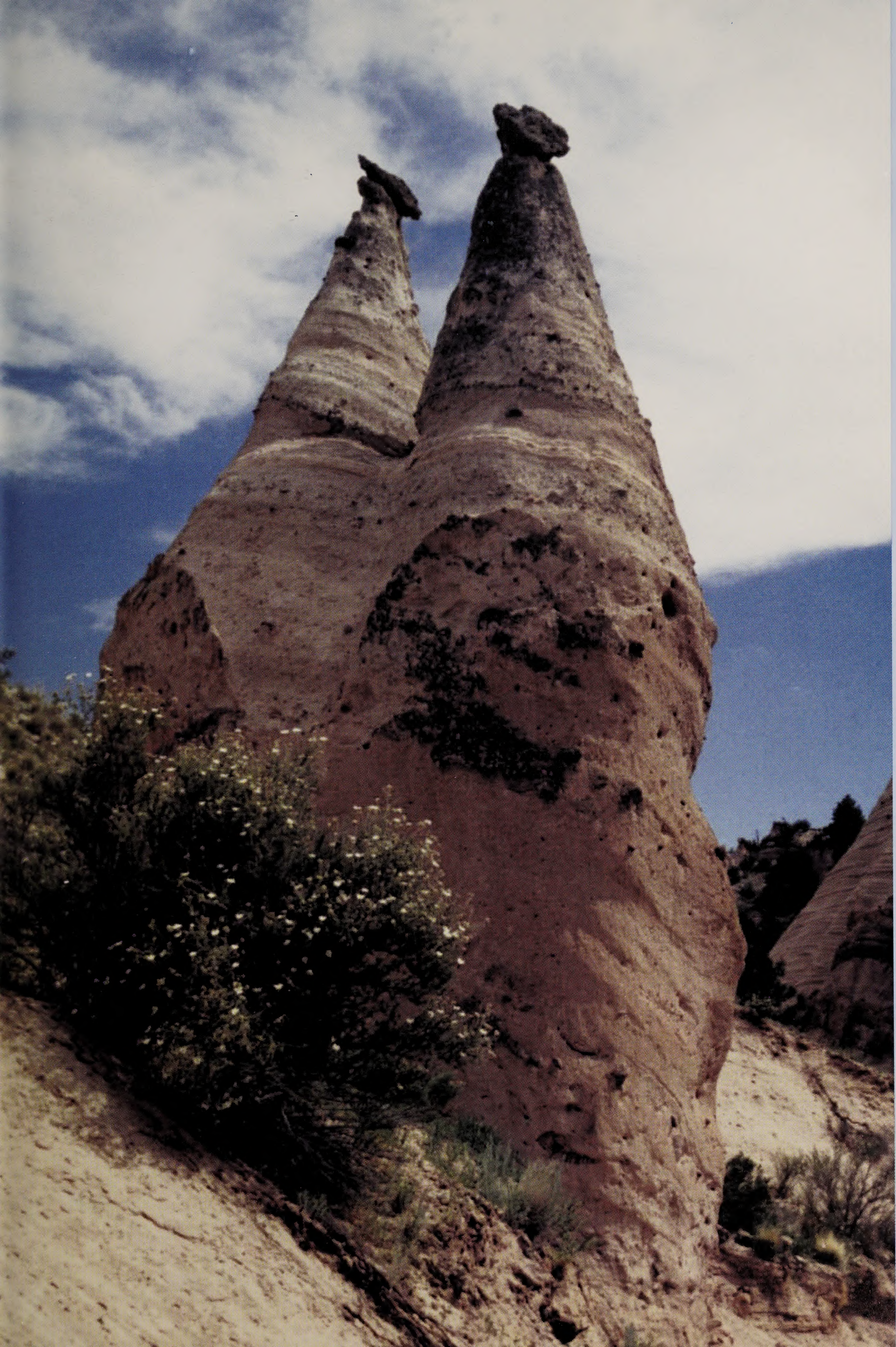
Linda S.C. Rundell  
New Mexico State Director

Date May 25, 2007















# KASHA-KATUWE TENT ROCKS NATIONAL MONUMENT RESOURCE MANAGEMENT PLAN

## CHAPTER 1

### INTRODUCTION

The Bureau of Land Management (BLM) Rio Puerco Field Office has prepared this Resource Management Plan (RMP) to address the management of public land within Kasha-Katuwe Tent Rocks National Monument and Planning Area in Sandoval County, New Mexico. The Approved RMP provides a framework for managing the public land within the Monument and Planning Area. Preparation of the RMP was guided by the BLM's planning regulations (43 Code of Federal Regulations 1600-1610), issued under the authority of the Federal Land Policy and Management Act of 1976 (FLPMA) and by the BLM Land Use Planning Handbook (BLM Handbook H-1601-1), and associated regulations.

#### PURPOSE AND NEED FOR THE PLAN

Presidential Proclamation 7394 (Appendix A) designated Kasha-Katuwe Tent Rocks National Monument on January 17, 2001 to provide opportunities for visitors to observe, study, and experience the geologic processes and cultural and biological objects of interest found in the area, as well as to protect these resources. The Antiquities Act of 1906 authorizes the President, at his or her discretion, to declare national monuments by public proclamation; these are usually historic landmarks, historic and prehistoric structures, or other objects of historic and scientific interest on lands owned and controlled by the U.S. Government.

Before this area was proclaimed a national monument, the BLM had administratively designated it as an Area of Critical Environmental Concern (ACEC) through the *Rio Puerco Resource Management Plan* (USDI, BLM 1986, maintained and reprinted 1992). An ACEC is an area requiring special management attention to

protect and prevent irreparable damage to important historic, cultural, or scenic values; fish and wildlife resources; or other natural systems or processes on the public lands. Since comparable formations are found only in the surrounding area of New Mexico and in Turkey, the Tent Rocks ACEC was designated to protect the volcanic formations that give the area its name.

Through the *Protection Plan for Tent Rocks ACEC* (USDI, BLM 1987), the BLM developed management prescriptions to maintain the geologic, scenic, recreational, and natural components of the ACEC. Management emphasis for this area prior to monument designation was on interpreting its geologic and scenic values while allowing semi-primitive non-motorized recreation. To provide for more consistent, effective, and collaborative management of the Federal and Pueblo lands within and adjacent to the Tent Rocks ACEC, the BLM and the Pueblo de Cochiti entered into an Inter-Governmental Cooperative Agreement in 1997. This original agreement has been followed by several others promoting cooperation between the Pueblo and the BLM in managing the area. Management of the area that is now Kasha-Katuwe Tent Rocks National Monument as an ACEC helped to preserve the area for use and enjoyment by the public and educational institutions.

Proclamation 7394 required that the Secretary of the Interior, through the BLM, prepare a management plan for the new Monument. This RMP meets that requirement and provides the framework for using and managing the Monument, a unit of the BLM's National Landscape Conservation System (NLCS), for the next 15 to 20 years. The BLM worked closely with the Pueblo de Cochiti in the development of this RMP which establishes the basis for continued



cooperation, as required by the Proclamation, as the RMP is implemented.

Under the BLM's current planning policy, a RMP must be prepared for the Monument separate from any other plan (a "stand-alone plan"). Policy also requires that the draft and proposed RMP be accompanied by an Environmental Impact Statement (EIS) as mandated by the National Environmental Policy Act of 1969 (NEPA). The Proposed RMP/Final EIS published in October 2006 fulfilled this requirement. The EIS disclosed to the public and BLM managers the impacts likely to result from implementation of this RMP. With the signing of the Record of Decision adopting the Proposed RMP as the Approved RMP, compliance with NEPA is complete and only the Approved RMP is presented in this document. The decisions made through this RMP apply to (1) Federal lands administered by the BLM within the Monument; (2) inholdings identified in the Proclamation for acquisition, if and when they are acquired; (3) the Southwest Acquisition, recently acquired; and (4) the North Edgeland, if and when it is acquired.

## PLANNING AREA

Located in north-central New Mexico in the foothills of the Jemez Mountains on the southwestern edge of the Pajarito Plateau, Kasha-Katuwe Tent Rocks National Monument is in Sandoval County about 5 miles west of the Rio Grande (see Maps 1 and 2 in the map section). It lies about 35 miles southwest of Santa Fe and 52 miles northeast of Albuquerque. Access to the area from these cities is by State Road (SR) 16 or SR 22 from Interstate Highway 25 (I-25), then by Tribal Route 92 which connects to BLM Road 1011 (also referred to locally as Forest Service Road 266). Adjacent to the Monument are the Pueblo de Cochiti on the east and south; Santo Domingo Pueblo, Jemez Pueblo and the Santa Fe National Forest on the west; and State lands to the north. The Monument is located within New Mexico Congressional District 3. The Pueblo de Cochiti is the gateway community to the Monument.

Within the Monument boundary are approximately 5,402 acres. The BLM manages 4,124 surface acres and 4,565 acres of minerals, the State of New Mexico owns approximately 521 acres (both surface and mineral), and the balance (approximately 757 surface acres and 316 acres of minerals) is privately owned (see Table 1-1 and Map 3 in the map section). Within the 15,635-acre Planning Area, the BLM manages 5,089 surface acres (4,124 in the Monument and the 956-acre Southwest Acquisition), the State owns 9,789 acres, and 757 acres are privately owned. The BLM manages 5,530 acres of minerals (all) within the Planning Area and 9,268 acres of minerals (gold, silver, and quicksilver only). The State of New Mexico owns 521 acres of minerals. There are 316 acres of private minerals (all) and 9,268 acres of private minerals (all minerals except gold, silver, and quicksilver).

## PLANNING PROCESS

The BLM planning process is designed to result in an RMP that provides a framework for managing the Monument and Planning Area. The RMP establishes areas for limited or restricted uses; allowable resource uses; resource condition objectives; program constraints; and general management direction. The BLM makes three primary levels of land use planning decisions: the RMP level, the activity level, and the site-specific level. This stand-alone RMP for the Monument and Planning Area focuses mainly on broad resource objectives and direction, but also provides some activity-level guidance and site-specific decisions. The KKTR RMP was developed using the nine basic steps of the BLM planning process, which are listed below.

- Identification of issues
- Development of planning criteria
- Data and information collection
- Analysis of the management situation
- Formulation of alternatives
- Estimation of effects of the alternatives
- Selection of the preferred alternative(s)
- Selection of the plan
- Monitoring and evaluation



**TABLE 1-1**  
**OWNERSHIP OF THE MONUMENT AND PLANNING AREA**

Area & Ownership <sup>a</sup>	Legal Acres <sup>b</sup>	GIS Acres <sup>b</sup>	Difference	
			Number of Acres	Percent of Legal Acres
<b><u>Monument</u></b>				
<u>Surface</u>				
Federal	4,114	4,124	10	0.24
State	521	521	0	0
Private (Total)	760	757	-3	-0.40
<u>Minerals</u>				
Federal	4,554	4,565	11	0.24
State	521	521	0	0
Private (Total)	320	316	-4	-1.27
<b>Monument Total</b>	<b>5,395</b>	<b>5,402</b>	<b>7</b>	<b>0.13</b>
<b><u>Planning Area</u></b>				
<u>Surface</u>				
Federal	5,077	5,089 <sup>c</sup>	12	0.24
State	9,909	9,789 <sup>a</sup>	-120	-1.20
Private	760	757	-3	-0.39
<u>Minerals</u>				
Federal (all minerals)	5,517	5,530	13	.24
(gold, silver & quicksilver only)	9,388	9,268	-120	-1.28
State (all minerals)	521	521	0	0
Private (all minerals)	320	316	-4	-1.27
(all minerals except gold, silver & quicksilver)	9,388	9,268 <sup>a</sup>	-120	-1.28
<b>Planning Area Total</b>	<b>15,746</b>	<b>15,635</b>	<b>-111</b>	<b>-0.70</b>

Notes: <sup>a</sup> During the preparation of this RMP, 9,268 acres of the Planning Area (surface only) changed from private to State ownership. The State Land Office has informed the BLM that the minerals (except gold, silver & quicksilver, which are in Federal ownership) remain in private ownership. This does not change the BLM's decision to pursue acquisition of this mineral ownership for the protection of resource values similar to those of the Monument.

<sup>b</sup> As the result of minor boundary discrepancies, the figures in Table 1-1 show some slight differences between the recorded legal acreages for the Monument and Planning Area, and the acreages calculated using the BLM's Geographic Information System (GIS), which allows production of maps and analyses based on computerized data. Because the acreage differences are small and the time and cost to adjust them was uncertain, the BLM Planning Team elected to show the differences on this table while using the GIS figures throughout the RMP.

<sup>c</sup> Includes 4,124 acres within the Monument boundaries and the 965-acre Southwest Acquisition.



Each of the steps in the planning process is described in greater detail in the November 2005 Draft RMP/EIS and October 2006 Proposed RMP/Final EIS. The attached Record of Decision represents the adoption of the Proposed RMP as the Plan to be implemented. Monitoring and evaluation of the resources and resource uses within Kasha-Katuwe Tent Rocks National Monument and Planning Area will be ongoing throughout the life of the RMP as described in Chapters 2 and 3.

### Scoping/Issues Addressed

Five issues were identified for the Planning Area associated with Kasha-Katuwe Tent Rocks National Monument during the scoping period; no other issues were raised. These were the issues addressed by the alternatives. Issues are considered the “drivers” of the land use planning process; that is, they are topics of conflict or controversy between resource uses and management to be resolved in the RMP. Because Presidential Proclamation 7394 sets limits on how the Monument is to be managed, and because the area is small compared to most other units within the National Landscape Conservation System, conflicts among resource uses to be resolved were few. However, the BLM addressed the following topics of concern in this RMP and refers to them as “issues.” The BLM has also addressed other basic environmental and management concerns to provide comprehensive management guidance for resources within the Monument and Planning Area, as well as to satisfy legal requirements. The following issues were addressed through alternative development, data collection, and impact analysis:

- Issue 1 - *Land tenure adjustment* and how land ownership will be incorporated into the RMP for the Planning Area, including the Monument.

Within the boundary of the Monument are 521 acres of State land and 757 acres of private land. Other parcels of non-Federal land adjoin the boundary of the Monument.

- Issue 2 - How *access and transportation* will be managed in the Monument and Planning Area.

The Proclamation directs that the BLM, through this management plan, consider road closures or travel restrictions to protect the objects of interest in the Monument.

- Issue 3 - How *recreational activities* and visitor use will be managed.

Recreational use of the Monument has been increasing over the past few years. The BLM has provided additional facilities and upgrades for visitor use and enjoyment, health and safety, and resource protection.

- Issue 4 - How *ecosystem restoration* will benefit the public and the Planning Area, especially the Monument.

Oneseed juniper trees are encroaching into the grasslands and shrublands of the Monument and Planning Area. The woodlands and forest stands are overstocked, need thinning, and are being affected by drought conditions and beetle attacks.

- Issue 5 - How *American Indian uses and traditional cultural practices* will be incorporated into the management of the Planning Area, particularly the Monument.

The Monument is adjacent to lands owned by several Indian pueblos and has special meaning to local American Indians.

### Issues Considered but Not Further Analyzed

The comments on the Draft RMP/EIS raised four issues or concerns related to the reintroduction of wildlife species, the use of firearms and hunting in the Monument, dogs in the Monument, and aircraft over the Monument. All of the concerns raised in the comments were addressed. Two were not within the scope of BLM planning, while the others could be addressed administratively.



The reintroduction of wildlife species is not within the scope of BLM planning since management of wildlife and hunting are under the jurisdiction of the New Mexico Department of Game and Fish. The BLM could cooperate through the improvement of habitat on Federal lands for reintroduced species. Likewise, because the nation's airspace is managed by the Federal Aviation Administration (FAA), aircraft over the Monument is not within the scope of BLM planning. The BLM will work with the FAA, the Department of Defense, and any other applicable agencies to ensure that authorized aviation activities affecting the Planning Area are done in a safe and appropriate manner, with minimal noise and other impacts on resource values, uses, and visitors' experiences. The BLM will work with commercial air tour companies to determine if the tours are appropriate and, if so, under what conditions. Aircraft landings, except for administrative and emergency purposes (e.g., fire, law enforcement, search and rescue), will not be authorized.

Shooting, hunting, and trapping are specifically prohibited at the BLM's developed recreation sites in New Mexico. Currently, dogs must be on a leash no longer than 6 feet in the BLM's developed recreation areas.

### **Planning Criteria**

BLM planning regulations (43 CFR 1610) require that planning criteria be prepared to guide development of RMPs. These criteria ensure that BLM plans are tailored to the identified issues and that unnecessary data collection and analyses are avoided. Criteria are based on applicable law, agency guidance, public comments, and coordination with other Federal, State, local, and American Indian tribal governments.

The planning criteria established to guide development of this RMP for Kasha-Katuwe Tent Rocks National Monument and Planning Area are listed below:

- The Plan will be completed in compliance with FLPMA and all other applicable laws. It will meet the requirements of Presidential

Proclamation 7394 (Appendix A) to protect the objects of geologic, cultural, and biological interest within the Monument.

- The BLM Planning Team will work cooperatively with the Pueblo de Cochiti and other tribal governments, the State of New Mexico, county and municipal governments, other Federal agencies, and other interest groups, agencies, and individuals.
- The Plan will establish the guidance upon which the BLM will rely in managing the Planning Area.
- The Plan will be accompanied by an EIS based on NEPA standards.
- The Plan will provide opportunities for visitors to study, observe, and experience the geologic processes as well as other cultural and biological objects of interest within the Planning Area.
- Consistent with Proclamation 7394, the Plan will set forth a framework for managing recreational activities and experiences.
- The Plan will recognize valid existing rights within the Monument and Planning Area.
- Livestock grazing management is prescribed by laws and regulations; however, the Proclamation excludes livestock grazing from within the Monument unless it can be determined that grazing will advance the purposes of the Proclamation. [Through the RMP, the BLM has determined that grazing, used properly, may serve this function.]
- The lifestyles of area residents will be recognized in the Plan.
- The Plan will recognize the State of New Mexico's responsibility and authority to manage wildlife, including hunting, within the Planning Area.
- The acquisition of State and private inholdings within the Monument and adjacent non-Federal lands will be considered.
- The Plan alternatives will address transportation, vehicular, and other types of access to the Planning Area.

### **Legislative Constraints**

Numerous Federal laws, executive orders, and policies guide development of BLM RMPs. Key laws applicable to this planning effort and



the development of the planning criteria include the following:

- National Environmental Policy Act of 1969, as amended
- Federal Land Policy and Management Act of 1976, as amended
- American Indian Religious Freedom Act of 1978, as amended
- Americans with Disabilities Act of 1990
- Archaeological Resources Protection Act of 1979, as amended
- Architectural Barriers Act of 1968
- Clean Air Act of 1963, as amended
- Clean Water Act of 1948, as amended
- Endangered Species Act of 1973, as amended
- Migratory Bird Treaty Act of 1918, as amended
- National Historic Preservation Act of 1966, as amended
- National Trails System Act of 1968, as amended
- Native American Graves Protection and Repatriation Act of 1990
- Rehabilitation Act of 1973, as amended

### **Relationship to BLM Policies, Plans, and Programs**

The BLM uses an ongoing planning process to ensure that land use plans and implementation decisions remain consistent with applicable laws, regulations, orders, and policies. The planning process thus far has involved public participation, assessment, and decision making. Approval of the RMP initiates a new phase of implementation, plan monitoring, and evaluation, as well as adjustment through plan maintenance, amendment, and revision. This process allows continuous adjustment to respond to new issues and changes in circumstances. The BLM makes decisions using the best information available; these decisions may be modified through the maintenance and amendment process as the BLM acquires new information and knowledge of new circumstances relevant to land and resource values, uses, and environmental concerns. Modifying land use plans through maintenance and amendment on a regu-

lar basis reduces the need for major revisions of land use plans. Changes in program emphasis and guidance may also require plan maintenance and amendment.

### **Collaboration**

#### ***Intergovernmental, Inter-Agency, and Tribal Relationships***

The BLM coordinated with Federal, State, local, and tribal agencies in managing this area as an ACEC prior to designation as a national monument. This coordination continued during development of this RMP, and will continue as the RMP is implemented. The Pueblo de Cochiti has participated in the management of the area under Cooperative Management Agreements since 1997. As called for by the Proclamation, the BLM will continue to manage the Monument in close cooperation with the Pueblo de Cochiti to implement the purposes of the Proclamation. In addition, the Pueblo has been a cooperating agency in this planning effort. Consultation has been carried out with the Pueblo de Cochiti and nine other American Indian Pueblos and Tribes in compliance with BLM's consultation policy.

The BLM must consult with the U.S. Fish and Wildlife Service under Section 7 of the Endangered Species Act of 1973 before beginning any project that may affect any Federally listed special status plant or wildlife species or its habitat. Since this Plan is considered to be a major Federal action, the BLM initiated the informal consultation process. Letters documenting this consultation are contained in Appendix F. The BLM has made a "No Affect" determination for this RMP for all Federally listed species.

Under Section 106 of the National Historic Preservation Act, the BLM must consider the effects of its actions on sites eligible for the National Register of Historic Places before a decision is made. In New Mexico, the BLM complies with Section 106 through a Protocol Agreement between the BLM and the New Mexico State Historic Preservation Officer (SHPO) signed in June 2004. The various planning documents were submitted to the SHPO with no response.



Although the Pueblo de Cochiti was the only formal cooperating agency, and consultation was required legislatively only with the U.S. Fish and Wildlife Service and New Mexico State Historic Preservation Officer, the BLM worked closely with many other agencies throughout the planning process. The New Mexico Governor's Office and affiliated State agencies have been involved and provided input into the Draft RMP/EIS and the Proposed RMP/Final EIS. The Sandoval County Board of Commissioners has also been involved and kept up to date on the development of the RMP.

### ***Other Stakeholder Relationships***

Other stakeholders with widely varied interests have also been invited to participate collaboratively in the planning process. The various documents or notifications of online availability were sent to 12 businesses and 57 interest groups, as well as numerous individuals. Comments were received from several of these stakeholders.

## **RELATED PLANS**

### **Relationship to BLM Plans**

The BLM makes three primary levels of land use planning decisions: the RMP level, the activity level, and the site-specific level. One RMP-level plan and two activity-level plans provided guidance for managing the Tent Rocks ACEC before its designation as Kasha-Katuwe Tent Rocks National Monument: the *Rio Puerco Resource Management Plan* (USDI, BLM 1986, maintained and reprinted 1992; as amended), the *Final Protection Plan for Tent Rocks ACEC* (USDI, BLM 1987), and the *Albuquerque Field Office Fire Management Plan* (USDI, BLM 2004a). Decisions from these three land use documents have been incorporated into this RMP. This stand-alone RMP now replaces these other plans for lands within the Monument and Southwest Acquisition, as well as for lands that may be acquired within the Planning Area.

### **Relationship to Other Agencies' Plans**

BLM planning regulations require that RMPs be consistent with officially approved, resource-related plans of other Federal agencies, state and local governments, and American Indian tribes, so long as these plans are also consistent with the purposes, policies, and programs of the Federal laws and regulations applicable to public lands. This RMP is consistent with the following officially approved, resource-related plans of other Federal agencies, and local and tribal governments.

- The *Sandoval County Comprehensive Zoning Ordinance* (Sandoval County 2005), which applies to private lands within the Planning Area.
- The *Master Plan, Design Memorandum No. 13—Cochiti Lake, Rio Grande, New Mexico* (U.S. DOA, COE 1973). The U.S. Army Corps of Engineers, Albuquerque District, prepared this plan in 1973 in cooperation with the Pueblo de Cochiti. The lake lies a few miles east of the Monument (see Map 2 in the map section).
- The *Santa Fe National Forest Plan* (USDA, FS 1987), which applies to lands near the northern and western boundaries of the Planning Area.
- The National Park Service's *Business Plan* for the nearby Bandelier National Monument (USDI, NPS 2001).

## **POLICY CONSTRAINTS**

Presidential Proclamation 7394 designated Kasha-Katuwe Tent Rocks National Monument to protect the area's special geologic and landscape values. The Proclamation also identified management requirements intended to protect the special resource values. These requirements have become part of the RMP decisions. In June 2000, the BLM responded to growing concern over the loss of open space by creating the National Landscape Conservation System (NLCS). The NLCS brings into a single system some of the BLM's premier specially designated areas. As a national monument, KKTR is a component of the NLCS.



## OVERALL VISION

Presidential Proclamation 7394 provides the vision for management of KKTR: Manage Kasha-Katuwe Tent Rocks National Monument to protect the resources that make the Monument “a remarkable outdoor laboratory, offering an opportunity to observe, study, and experience the geologic processes that shape natural landscapes, as well as other cultural and biological objects of interest” while allowing as many visitors as possible to enjoy these resources without degrading them.

## DECISIONS APPEALABLE AT RECORD OF DECISION SIGNING

Some of the land use planning decisions made through this resource management plan became effective upon the signing of the Record of Decision. These are implementable decisions and require no further authorization requiring public involvement prior to their taking effect. Therefore, they may be appealed under the Department of the Interior’s appeal regulations (43 CFR Part 4). Any party adversely affected by the decisions listed immediately below may appeal within 30 days of receipt of this decision in accordance with the provisions of 43 CFR Part 4.4. Publication of the Notice of Availability for the ROD/RMP in the Federal Register will be considered the date of receipt of this decision.

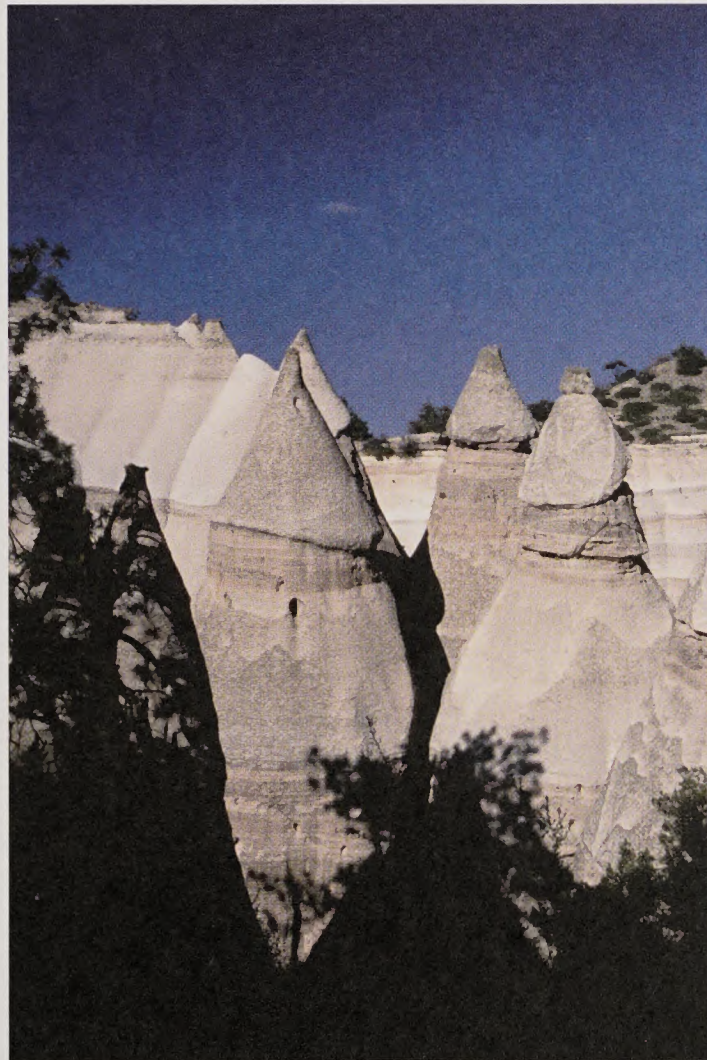
- Motorized and mechanized access for recreational visits to the Monument and Planning Area will be provided on 5.95 miles of road designated as “open” for public access. An additional 7.8 miles of road will have “limited” access for authorized administrative and emergency uses only. Resource protection will be provided by closing 11.5 miles of existing roads (see Tables 2-1 and 2-2 and Map 4 in the map pocket for designation of road segments).
- The off-highway vehicle (OHV) designation for the entire Planning Area will be “OHV use limited to designated roads and trails” for motorized and mechanized modes of travel.
- Under the Recreational Opportunity Spectrum classification, public motorized access is provided to approximately 1,987 Federal acres of the Planning Area. Limited motorized access for authorized administrative or emergency uses only is provided to another 2,048 acres. Non-motorized access is available to approximately 1,054 Federal acres (see Map 7 in the map section).
- Designated hiking and equestrian trails provide 8.13 miles of access to Federal lands (see Table 2-3 and Map 4 in the map pocket for trail segment designations).
- Designate 0.7 mile of converted road to “Open” trail for pedestrian use.
- Designate 0.9 mile of new trail “Open” for pedestrian and equestrian use.
- The 5,402 acres designated by Presidential Proclamation 7394 as the National Monument will also continue to be designated as an Area of Critical Environmental Concern (ACEC). The Monument/ACEC will be managed for Proclamation and ACEC resource values.
- The BLM will designate Federal lands within the Planning Area (including any acquired lands) as a Special Recreation Management Area (SRMA). Acquired lands will be operated under the rules at 43 CFR 8365 as they support the purposes of the Proclamation.
- While recognizing valid existing rights, the BLM will consider the Planning Area to be a right-of-way exclusion area. Rights-of-way for uses that do not currently exist will not be considered except for those that would support Monument purposes.
- Special geologic features will be protected on 167 acres of Federally owned Monument lands for visitor viewing and observation.
- Visual Resource Management Classes II and III will be used to guide management actions on the public lands within the Planning Area.



- In areas of intensive recreational use and along the existing primary vehicular route (BLM Road 1011) through the Monument, VRM Class III has been assigned to 1,202 acres that encompass the immediate foreground (¼ mile) surrounding the developed facilities (see Map 11 in the map section). On the Class III lands, only activities and structures that would attract attention but not dominate the view of the casual observer

will be allowed. Any changes would borrow from the basic elements found in the natural features of the surrounding characteristic landscape.

- VRM Class II has been assigned to the 3,887 remaining acres of public lands, where the intent will be to retain the existing character of the landscape by keeping implementation actions from attracting attention.



*Tent Rock formations viewed from Upper Slot Canyon.*



The first part of the paper discusses the importance of the study and the objectives of the research. It also provides a brief overview of the methodology used in the study.

The second part of the paper discusses the results of the study and the conclusions drawn from the data.

The third part of the paper discusses the implications of the study and the recommendations for future research.

The fourth part of the paper discusses the limitations of the study and the strengths of the research. It also provides a brief overview of the methodology used in the study.

The fifth part of the paper discusses the conclusions drawn from the data and the implications of the study.

The sixth part of the paper discusses the recommendations for future research and the strengths of the research.

The seventh part of the paper discusses the limitations of the study and the implications of the study.

The eighth part of the paper discusses the conclusions drawn from the data and the recommendations for future research.

The ninth part of the paper discusses the implications of the study and the strengths of the research.

The tenth part of the paper discusses the conclusions drawn from the data and the implications of the study. It also provides a brief overview of the methodology used in the study.

The eleventh part of the paper discusses the recommendations for future research and the strengths of the research.

The twelfth part of the paper discusses the limitations of the study and the implications of the study.

The thirteenth part of the paper discusses the conclusions drawn from the data and the recommendations for future research. It also provides a brief overview of the methodology used in the study.

The fourteenth part of the paper discusses the implications of the study and the strengths of the research. It also provides a brief overview of the methodology used in the study.

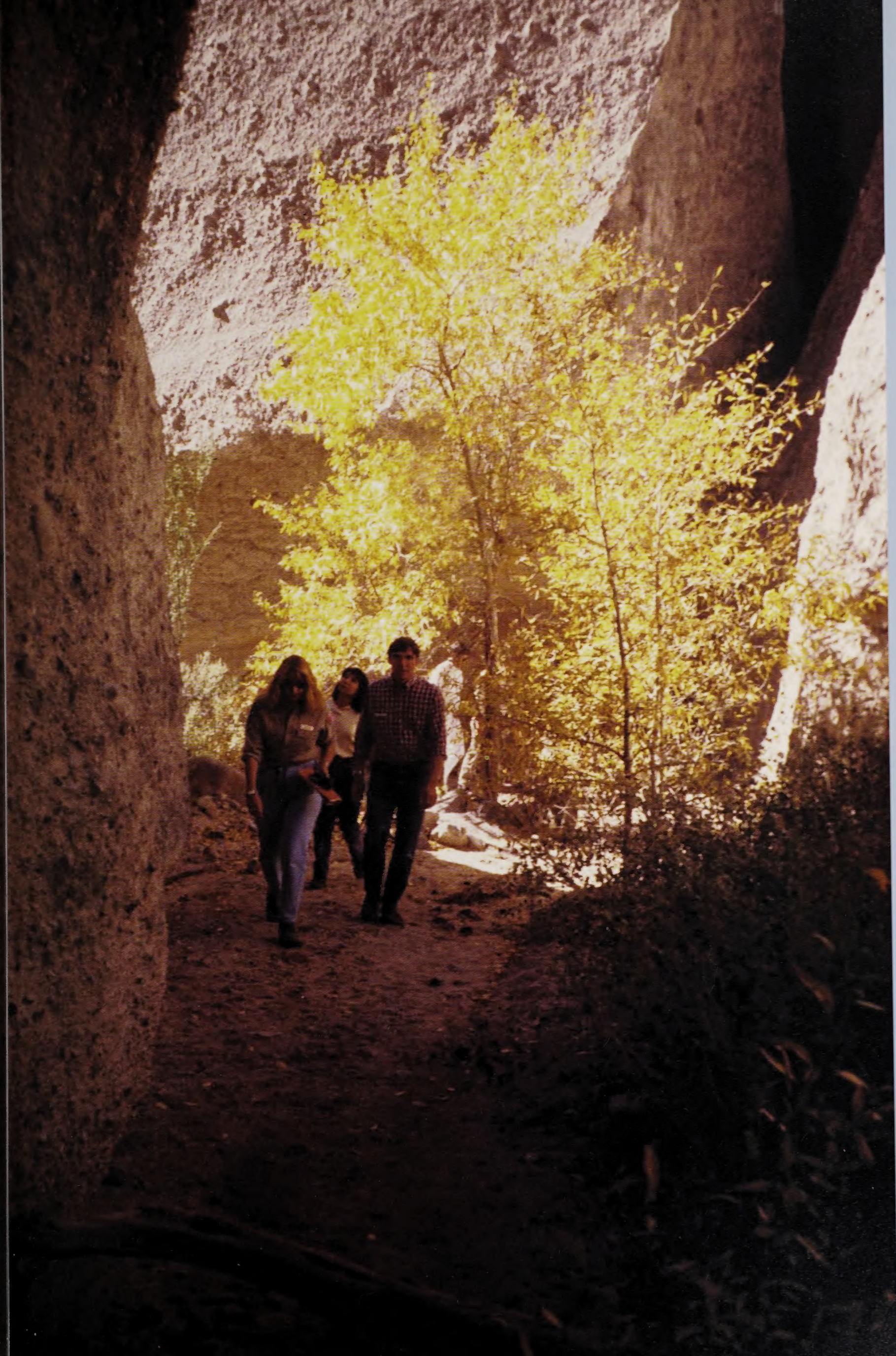
The fifteenth part of the paper discusses the conclusions drawn from the data and the recommendations for future research. It also provides a brief overview of the methodology used in the study.

The sixteenth part of the paper discusses the implications of the study and the strengths of the research. It also provides a brief overview of the methodology used in the study.

The seventeenth part of the paper discusses the conclusions drawn from the data and the recommendations for future research. It also provides a brief overview of the methodology used in the study.

The eighteenth part of the paper discusses the implications of the study and the strengths of the research. It also provides a brief overview of the methodology used in the study.











## CHAPTER 2

### MANAGEMENT DECISIONS

#### INTRODUCTION

BLM managers selected the management guidance of the Proposed Action (Alternative B), as the Approved RMP. Under the RMP, the BLM's management focus will be to allocate resources to resolve resource use issues or conflicts and management concerns associated with the Monument, while complying with Presidential Proclamation 7394 and current BLM policies, initiatives, and guidance. The BLM will more intensively manage recreational use through additional development of facilities for visitor use and enjoyment of the area; resource protection; visitor health and safety needs; meeting land health standards; research and environmental education opportunities that are in compliance with the Proclamation; and protecting American Indian use areas and traditional cultural practices. The RMP allocates uses of resources and critical elements as discussed below and summarized in Chapter 4, "Management Plan Implementation." Implementation of the RMP should resolve the issues and provide management direction for the next fifteen to twenty years.

Up to this point in the planning process, proposed decisions have been presented by issue. Now that the RMP has been approved, the decisions to be implemented are presented in this chapter by resource program area (for example, "Lands and Realty" or "Special Status Species"). The narrative for each resource program is divided into three sections: Goals and Objectives, Management Actions, and Monitoring. These sections are described below:

#### Goals and Objectives

Land use plans ensure that the public lands are managed in accordance with the intent of Congress as set out in FLPMA (43 U.S.C. 1701 et seq.), under the principles of multiple use and

sustained yield. As required by FLPMA and BLM policy, the public lands must be managed in a manner to protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values; that, where appropriate, will preserve and protect certain public lands in their natural condition; that will provide food and habitat for fish and wildlife and domestic animals; that will provide for outdoor recreation and human occupancy and use; and that recognizes the Nation's need for domestic sources of minerals, food, timber, and fiber from the public lands by encouraging collaboration and public participation throughout the planning process. Land use plans are one of the primary mechanisms for guiding BLM activities to achieve the mission and goals outlined in the Department of the Interior Strategic Plan (USDI 2003). The KKTR RMP has established goals and objectives for management of the Monument and Planning Area. These goals and objectives are described by program and/or resource below to identify desired management results for the Monument and Planning Area.

#### Management Actions

Land use plan decisions identify resources to be applied and the means for application of resources to achieve the stated goals and objectives. "Management Actions" in this document include three types of resource management guidance. They are **proclamation requirements** (specific resources to be applied or applications required by the Proclamation); **previously approved management actions** (established management guidance believed to be moving conditions toward desired goals and objectives and therefore carried forward into the current Plan); and **Approved Plan management actions** (actions believed to have potential to contribute to more efficient and effective achievement of the goals and objectives).



“Management Actions” in the resource program sections below include all three types of program/resource management guidance.

For each resource program, the “Management Actions” section is further divided into three subsections: “Allowable Uses and Actions,” “Implementation Decisions,” and “Support Services.”

### *Allowable Uses and Actions*

This subsection summarizes allowable uses, restricted uses, and prohibited uses. It also includes management measures that will guide future day-to-day activity.

### *Implementation Decisions*

By the approval of the Record of Decision, decisions have been made for the allocation and use of Federal lands, interests in lands, and resources in the Monument and Southwest Acquisition. Decisions have also been made for lands in the remainder of the Planning Area; however, these decisions can be implemented only if proposed acquisitions from willing sellers are completed or through Cooperative Management Agreements.

### *Support Services*

This subsection identifies needs from three support programs: Lands and Realty (for lands and right-of-way/easement acquisition), Cadastral Survey, and Engineering. Needed support services will be identified in scheduling and budgeting for plan implementation. Many other programs such as Cultural Resources, Special Status Species, and Visual Resources will provide input into various aspects of plan implementation but are not considered “support services.”

### **Monitoring**

This section describes plans for monitoring to assess progress toward meeting program or resource goals and objectives. In some cases, it discusses plans of action if monitoring indicates actions are not meeting goals and objectives, or if actions are no longer needed. Monitoring will help the BLM to detect and document natural and human-induced changes in resource conditions and visitor experiences, and offer insights into the effectiveness of resource management policies and objectives. It will enable personnel to understand what might be driving any changes requiring intervention (corrective management actions or strategies).



*Veterans Memorial Scenic Overlook*



## ACCESS AND TRANSPORTATION

### Goals and Objectives

The BLM's goals in managing access and transportation are (1) to promote the safety of all users of the public lands *[AT-1a]* and (2) to minimize conflicts between the various users of those lands *[AT-1b]*.

To meet these goals, the BLM designates all roads on public land in the Planning Area in one of the following three categories: open, closed, or limited (open for authorized administrative or emergency use only). The following criteria are used to place roads into one of the three categories:

- In designating roads, the BLM considers the protection of resources such as valuable wildlife habitat, cultural resource values, traditional cultural properties, watershed, and recreational values.
- When duplicate or multiple roads lead to the same location on public lands, the BLM considers closing and rehabilitating at least one of these roads to deter use and protect the watershed and other resources.
- The BLM considers limited use on roads where (1) trespassing on non-public land would be encouraged by an open designation; or (2) the road crosses non-public land and is needed for administrative purposes, emergency rescue or fire, and no other open roads exist nearby.
- The road serves as important access to facilities, recreational opportunities, or areas needed for program administration.
- The road is reasonably located.
- The road generally complies with resource management objectives.
- Roads used for access under authorized live-stock grazing leases or other authorization will not be restricted.

### Management Actions

The Proclamation prohibits use of all motorized and mechanized vehicles off road, except for

emergency or authorized administrative purposes. The Proclamation also requires that the management plan include appropriate transportation planning that addresses the actions, including road closures or travel restrictions, needed to protect the geologic, cultural, and biological objects of interest identified in the Proclamation (see Appendix A) and to further the purposes of the American Indian Religious Freedom Act of August 11, 1978 (42 U.S.C. 1996).

Numerous roads exist in the Monument and Planning Area, developed either by continuous casual use or for such purposes as removal of material excavated from the area's old mines. Those roads not needed for visitation, safety, or administrative purposes will be closed. BLM staff will determine appropriate restoration measures such as stabilization and reseedling to prevent soil erosion. Such Best Management Practices for minimizing sediment pollution will be developed and implemented on a site-specific basis. (See "Soil and Water Resources" below for additional information.)

### *Allowable Uses and Actions*

Of the 25.25 miles of vehicle transportation routes currently on Federal lands in the Planning Area (19.55 miles in the Monument and 5.7 miles in the Southwest Acquisition), about 5.95 miles will continue to be open to public use *[AT-2]*, 7.8 miles will be limited to authorized administrative and emergency use only *[AT-3]*, and 11.5 miles will be closed *[AT-4]*, leaving 13.75 miles of vehicle routes. (See Map 4 in the map pocket for road segment locations and Tables 2-1 and 2-2 for segment mileage and status.)

Of the 8.43 miles of trails now on Federal land, about 1.9 miles will be closed *[AT-5]*, 6.33 miles will be open to hiking and/or equestrian use *[AT-6]*, and 0.2 mile will be limited to authorized administrative or emergency use *[AT-7]*. In addition, 0.9 mile of new trail will be constructed *[AT-8]* and Road Segment 103 (0.7 mile) will be closed to motorized and mechanized vehicles and converted to a hiking trail *[AT-9]*, resulting



TABLE 2-1

## STATUS OF ROAD SEGMENTS IN THE MONUMENT

Segment Number <sup>a</sup>	Length (miles)	Type <sup>b</sup>	Status
100	0.70	Primitive road	Closed
100A	1.00	Primitive road	Closed
100B	0.40	Primitive road	Closed
100C	0.30	Primitive road	Closed
100D	0.10	Primitive road	Closed
100E	0.10	Primitive road	Closed
100F	0.30	Primitive road	Closed
101	0.80	Primitive road	Closed
101A	1.50	Primitive road	Closed
101B	0.20	Primitive road	Closed
101C	0.10	Primitive road	Closed
102	0.90	Primitive road	Limited <sup>c</sup>
102A	0.80	Primitive road	Closed
102B	0.90	Primitive road	Closed
102C	0.20	Primitive road	Limited <sup>c</sup>
102D	0.10	Primitive road	Limited <sup>c</sup>
103	0.70	Primitive road	Closed <sup>d</sup>
103A	0.20	Primitive road	Closed
103B	0.20	Primitive road	Closed
103C	0.20	Primitive road	Closed
103D	0.30	Primitive road	Closed
103E	0.10	Primitive road	Closed
104	0.40	Primitive road	Closed
104A	0.50	Primitive road	Limited <sup>c</sup>
105	0.05	Primitive road	Open
106	0.10	Resource road	Closed
1011 (also known as Forest Service Road 266 and Tribal Road 92)	5.90	Collector road	Open <sup>e</sup>
1011A	1.00	Resource road	Limited <sup>c</sup>
1011B	1.50	Resource road	Limited <sup>c</sup>
Road Access Designation			Mileage
Open			5.95
Limited			4.20
Closed			9.40

Notes: <sup>a</sup> See Map 4 (in the map pocket) for segment location.

<sup>b</sup> See the Glossary for definitions of these road types.

<sup>c</sup> Road segment limited to authorized administrative or emergency use only.

<sup>d</sup> Close road and convert to hiking trail, for use with proposed small developed parking area and trailhead.

<sup>e</sup> Road will have different hours of operation summer and winter. It may be closed at the fee station if it becomes impassible and be closed seasonally in T. 17 N., R. 4 E., Sec. 30 for fire protection.



TABLE 2-2

## STATUS OF ROAD SEGMENTS IN THE SOUTHWEST ACQUISITION

Segment Number <sup>a</sup>	Length (miles)	Type <sup>b</sup>	Status
107	0.4	Resource	Limited <sup>c</sup>
107A	0.6	Primitive	Limited <sup>c</sup>
108	1.7	Primitive	Closed
108A	0.2	Primitive	Closed
108B	0.2	Primitive	Closed
109	0.9	Resource	Limited <sup>c</sup>
1011C	1.7	Resource	Limited <sup>c</sup>
Road Access Designation			Mileage
Open			0.0
Limited			3.6
Closed			2.1

Notes: <sup>a</sup> See Map 4 (in the map pocket) for segment location.

<sup>b</sup> See the Glossary for a definition of these road types.

<sup>c</sup> Road segment limited to authorized administrative or emergency use only.

in a total of 8.13 miles of trails. (See Map 4 in the map pocket for road and trail segment locations and Table 2-3 for segment mileage, status, and approved use.)

BLM routes designated on Federal lands within the Planning Area include 5.9 miles of collector road (BLM Road 1011), 5.5 miles of resource roads, and 2.35 miles of primitive roads (see Tables 2-1 and 2-2). All of the resource roads and primitive roads are limited to authorized administrative and emergency use only; see the Glossary for road definitions. Mileage of roads in areas proposed for acquisition from willing sellers or potentially under Cooperative Management Agreements is unknown.

### Implementation Decisions

Motorized and mechanized access for recreational visits to the Monument and Planning Area will be provided on 5.95 miles of road designated as open for public access [AT-2]. An additional 7.8 miles of road will have limited access for authorized administrative and emergency uses only [AT-3]. Resource protection will be provided by closing 11.5 miles of existing roads [AT-4] (see Tables 2-1 and 2-2, and

Map 4 in the map pocket). As acquisitions are completed, roads in the acquired areas will be evaluated and designated as open for public use, limited to authorized administrative or emergency use as a part of the transportation system, or closed [AT-10] and identified for rehabilitation [AT-11].

The off-highway vehicle (OHV) designation for the entire Planning Area is "limited to designated roads and trails" for motorized and mechanized modes of travel [AT-12]. This means that visitors using motorized and mechanized travel must remain on designated roads and trails, except for authorized administrative use, emergency services, or valid existing rights.

Under the Recreation Opportunity Spectrum classification, public motorized access is provided to approximately 1,987 Federal acres of the Planning Area. Limited motorized access for authorized administrative or emergency uses only is provided to another 2,048 acres. Non-motorized access is available to approximately 1,054 Federal acres [RU-5] (see Map 7).

Designated hiking and equestrian trails will provide an additional 8.13 miles of access to



TABLE 2-3

## STATUS OF TRAIL SEGMENTS IN THE MONUMENT AND SOUTHWEST ACQUISITION

Segment Number <sup>a</sup>	Length (miles)	Current or Past Use	Authorized Use	Status
T1	1.60	National Recreation Trail	Hiking	Open
T2	0.70	National Recreation Trail	Hiking	Open
T3	0.40	Recreation trail	None	Closed
T4	0.03	Parking lot trail	Hiking	Open
T5	0.20	Possibly used for Civilian Conservation Corps camp (1933-42)	Hiking	Limited <sup>b</sup>
T6	0.30	Primitive trail—possibly used by livestock	None	Closed
T7	1.10	Pack trail	None	Closed
T8	1.30	Cañada Camada trail	Hiking	Open <sup>c</sup>
T9	0.30	Canyon bottom access—Peralta Canyon	Hiking	Open
T10	0.10	Pack trail	None	Closed
L1	0.60	Livestock trail	Hiking and equestrian use <sup>d</sup>	Open <sup>e</sup>
L2	0.40	Livestock trail	Hiking	Open <sup>f</sup>
L3	1.40	Livestock trail through wash	Hiking and equestrian use <sup>d</sup>	Open <sup>e</sup>
E1	0.90	Proposed new trail	Hiking and equestrian use <sup>d</sup>	Develop and open
Road Segment 103	0.70	Convert primitive road to hiking trail	Hiking	Close road, open as trail
<b>Trail Access Designation</b>				<b>Mileage</b>
Open <sup>g</sup>				7.93
Limited				0.20
Closed				1.90

Notes: <sup>a</sup> See Map 4 (in the map pocket) for segment locations.

<sup>b</sup> Limited to authorized or emergency use only.

<sup>c</sup> Previously authorized—identify treadway and construct to Americans with Disabilities Act standards.

<sup>d</sup> Equestrian use by permit only on a case-by-case basis.

<sup>e</sup> Improve for use as hiking and equestrian trail.

<sup>f</sup> Improve for use as hiking trail.

<sup>g</sup> Includes 0.4 mile of livestock trail to be converted to hiking trail (L2), 2.0 miles of livestock trails to be converted to hiking and equestrian trails (L1 and L3), 0.7 mile of road to be converted to hiking trail (RS103), plus 0.9 mile of a new trail segment to be developed for hiking and equestrian use (E1), and 1.3 miles of previously authorized hiking trail currently under development (T8).



Federal lands when construction is complete on all authorized trails [AT-6, AT-7, AT-8, AT-9] (see Table 2-3 and Map 4 in the map pocket for trail segment designations). As acquisitions are completed, trails in the acquired-areas will be evaluated and designated as open for public use, limited to authorized administrative or emergency use as a part of the transportation system, or closed [AT-13] and identified for rehabilitation [AT-14]. Additional trails will be developed if land acquisitions are completed [AT-15]. Trails may also be developed on private land through Cooperative Management Agreements [AT-16].

Access for research permits will be considered as authorized administrative use and will be reviewed on a case-by-case basis [AT-17]. Research may include field work, specimen collection, or other types of scientific study. Permits will be issued after a thorough review of research goals, strategies, operational detail, and potential for resource disturbance. The duration of each permit will vary based on applicant performance (past and present), the resources being studied, the type and extent of resources, and other related factors.



*This trail leads from the cool, shaded Slot Canyon to the sunny Vista Point overlook.*

If the North Edgeholding is acquired, it will initially be closed to public entry except access (1) on existing public roads or (2) with prior authorization from the Rio Puerco Field Manager. The BLM may allow a two-year period of resource survey and evaluation before making land and resource allocations. The BLM may provide guided tours in the interim. After consulting with potentially affected American In-

dian tribes, carrying out resource data inventory, including assessment of cultural resources, and implementing measures to mitigate potential adverse effects to cultural resources and other resources, the area will be opened with appropriate restrictions [AT-18].

BLM Road 1011 will have different hours of operation summer and winter. In addition, it may be closed at the fee station if it becomes impassible and be closed seasonally in T. 17 N., R. 4 E., Section 30 for fire protection [AT-19].

Roads and trails will be minimized in traditional use areas by road and trail closures and relocations [AIU-5].

### ***Support Services***

#### ***- Lands and Realty***

Acquisition of lands for resource protection is a needed support service.

Acquisition of access easements is a support service needed for road access through the Monument.

#### ***- Cadastral Survey***

Cadastral survey is a support service needed for establishment of ownership boundaries and locating access easements to eliminate trespass on private property.

#### ***- Engineering***

Engineering support services are needed for design, construction, and maintenance of access and transportation facilities.

### **Monitoring**

Road and trail use will be observed and recorded. This information will be used to support proposals for facility maintenance and development. It will also be used in considering the quality of the user experience and to determine need for additional roads and trails, especially on newly acquired lands.



## AIR QUALITY

### Goals and Objectives

The BLM's objective for air quality is to prevent significant deterioration of the Class II airshed designated by the Clean Air Act [AQ-1]. Meeting this objective requires that the BLM's own management actions and any authorizations granted for the use of public lands comply with and support local, state, and Federal laws. All BLM actions and use authorizations will be designed and stipulated to protect air quality in and adjacent to the Monument and Planning Area, and the nearby National Park Service Class I area, Bandelier National Monument [AQ-2].



*Evening Primrose.*

### Management Actions

As stated above, meeting this air quality objective requires that the BLM's own management actions and any authorizations granted for the use of public lands comply with and support local, state, and Federal laws.

#### *Allowable Uses and Actions*

All BLM actions and use authorizations will be designed and stipulated to protect air quality in and adjacent to the Monument and Planning Area, and the nearby National Park Service Bandelier National Monument Class I area [AQ-2]. The Fire Management Program is most likely to propose actions and authorizations affecting air quality.

#### *Implementation Decisions*

None.

#### *Support Services*

No support needs have been identified and none are anticipated.

### Monitoring

Visual monitoring is required for prescribed fire projects and wildfires. Observations of smoke plume characteristics such as direction, rise, color and density of the plume, and the time of day of observations will be recorded on the Visual Monitoring Form.



## AMERICAN INDIAN USES AND TRADITIONAL CULTURAL PRACTICES

### Goals and Objectives

The BLM 8120 Manual specifies a number of laws, executive orders, presidential memoranda, and secretarial orders that require government-to-government consultation regarding cultural, historical, and religious concerns of American Indians [AIU-1]. Under these authorities the BLM seeks to ensure that tribal issues and concerns are given legally adequate consideration during decision making [AIU-2]. In addition, the BLM is committed to protecting sensitive information relating to tribal concerns, and to fostering good working relationships with the tribes.

### Management Actions

Presidential Proclamation 7394 emphasizes the historical connection of the Pueblo de Cochiti to Kasha-Katuwe Tent Rocks National Monument and places special emphasis on furthering the purposes of the American Indian Religious Freedom Act.

The BLM will continue close coordination and cooperation with the Pueblo de Cochiti in the day-to-day operations of the Monument and Planning Area. For actions requiring an environmental assessment (EA) and/or environmental impact statement (EIS) under NEPA, the BLM will consult with Cochiti, Santo Domingo, Jemez and Zia Pueblos, as well as any tribes that may come forward later to express concern about traditional cultural properties, places, and uses in the Monument and Planning Area. These tribes, the Hopi Tribe, and the Jicarilla Apache Nation, will be included in any consultation required by the Native American Graves Protection and Repatriation Act.

### *Allowable Uses and Actions*

For American Indian Uses and Traditional Cultural Practices, the BLM will follow the

consultation practices described above under "Goals and Objectives." BLM developments and recreation management policies will be oriented, in part, toward discouraging visitor use in sensitive areas identified by American Indians [AIU-3]. In addition, with appropriate advance notice, the BLM will consider brief, temporary closures of all or portions of the Monument and Southwest Acquisition to ensure privacy for traditional uses [AIU-4].

If the BLM acquires the North Edgeholding, it will initially be closed to public entry except access (1) on existing public roads or (2) with prior authorization from the Rio Puerco Field Manager. After consulting with potentially affected American Indian tribes and carrying out resource data inventory (not to exceed two years' duration), the area will be opened with appropriate restrictions [AT-18].

### *Implementation Decisions*

Specific areas where American Indian uses and traditional cultural practices take place are not identified in this document because of the sacred nature of some of these uses. Also, visitors' natural inquisitiveness could lead to higher levels of intrusion. Traditional use areas will be identified through the use of existing data on file and through consultation with tribes as part of the NEPA process and in compliance with NHPA.

Roads and trails will be minimized in traditional use areas by road and trail closures and relocations [AIU-5].

The Pueblo de Cochiti will continue to be involved in management of the Monument and Planning Area through Cooperative Management Agreements. The Pueblo will continue to have close day-to-day participation in managing the Monument [AIU-6].

On an infrequent basis, the Pueblo can temporarily close roads for control of access to avoid disruption of tribal ceremonies [AIU-4].

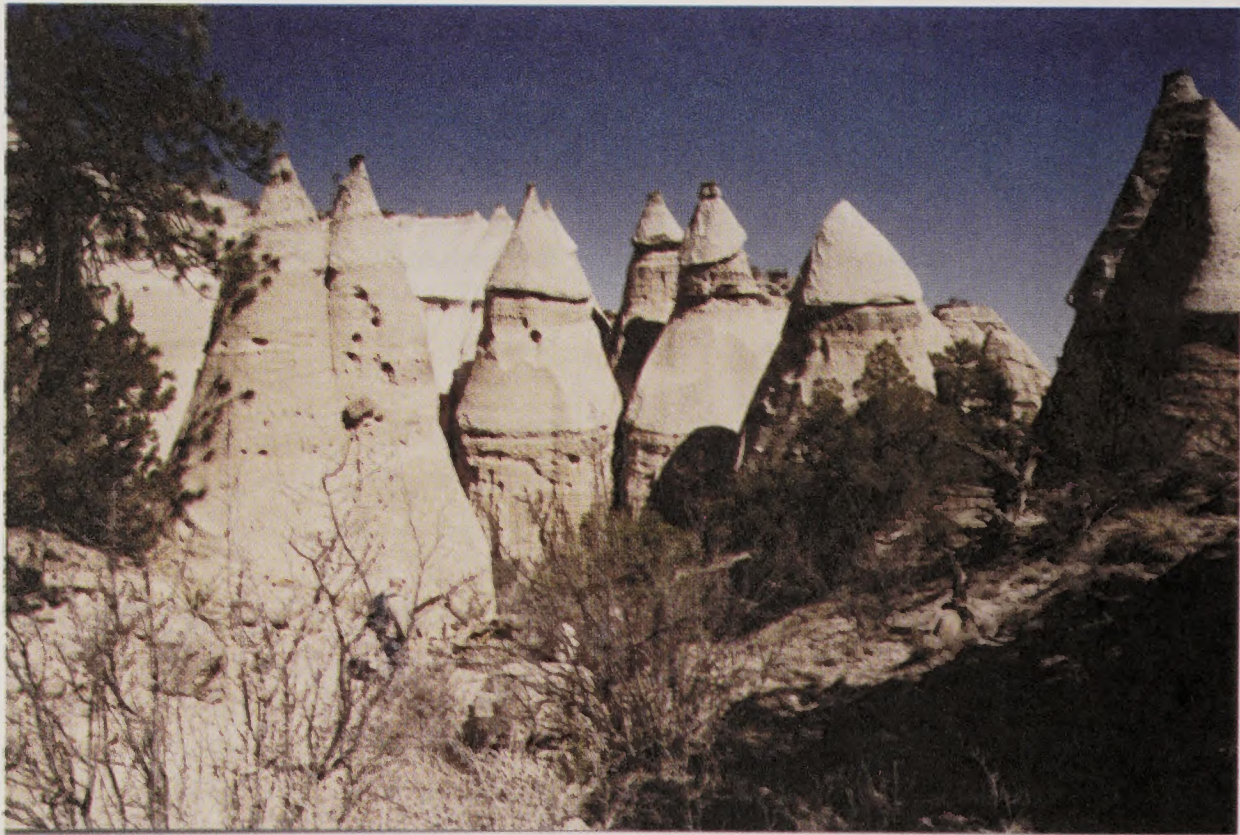


### *Support Services*

No support needs have been identified and none are anticipated.

### **Monitoring**

Notes will be kept on file as to comments received through the tribal consultation process. Tribal concerns and issues will be documented in the files and reviewed periodically to ensure that they are being taken into consideration, particularly regarding management of traditional use areas.



*Tent Rock formations viewed from trail.*



## CULTURAL RESOURCES

### Goals and Objectives

The goals of the BLM's Cultural Resources Program are defined in BLM Manual 8100. Managing cultural resources is viewed as an integrated system of identifying and evaluating cultural resources, deciding on their appropriate uses, and administering them accordingly *[CR-1a]*. The objectives are as follows:

- Respond in a legally sufficient and professional manner to the legal authorities concerning historic preservation and cultural resource protection, and to the principles of multiple use *[CR-1b]*.
- Recognize potential public and scientific uses of cultural resources on public lands, managing the lands and cultural resources so that these uses and values are appropriately protected *[CR-1c]*.
- Contribute to land use planning and multiple use management in ways that (1) make optimum use of the thousands of years of land use history inherent in cultural resource information, and (2) safeguard opportunities for achieving appropriate uses of cultural resources *[CR-1d]*.
- Protect and preserve in place representative examples of the full array of cultural resources on public lands for the benefit of scientific and public use by present and future generations *[CR-1e]*.
- Ensure that proposed land uses avoid inadvertent damage to Federal and non-Federal cultural resources *[CR-1f]*.
- Further the goals of the Department of the Interior and BLM Strategic Plans (USDI 2003; USDI, BLM 1997), and the Government Performance and Results Act *[CR-1g]*.

### Management Actions

In describing the elements to be protected within the Monument, the Presidential Proclamation places special emphasis on the remnants of human history scattered throughout the Monument. To protect these resources, the Proclamation

states: "No person may use, injure, destroy, or remove any feature of this Monument without authorization, nor locate nor settle upon any of the lands" *[CR-2]*.

The BLM complies with the National Historic Preservation Act through procedures described in the "Protocol Agreement Between New Mexico Bureau of Land Management and New Mexico State Historic Preservation Officer" (signed in June 2004), or any later agreements *[CR-3]*. The original agreement normally requires intensive archeological survey (BLM Class III inventory) of areas that will be directly affected by a project or action. If archeological resources are found, the preferred course of action is to redesign the project to avoid them. If this is not possible, the BLM undertakes data recovery or other measures developed in consultation with the New Mexico State Historic Preservation Officer and the appropriate tribes to reduce adverse impacts.

### *Allowable Uses and Actions*

The BLM will follow the procedures described above for Cultural Resources. However, more stringent inventory requirements will be in effect, with larger buffers and Class III (intensive) inventory, in all questionable cases *[CR-4]*. For example, the following management measures will apply:

*Access and Transportation* - The 1.05 miles identified for easement acquisition along BLM Road 1011 have already been inventoried for cultural resources. The agency has inventoried 5.3 miles of roads open to public access. Before any further maintenance is done, the BLM will inventory the remaining 0.65 miles of "open" roads, as well as the 7.8 miles of roads limited to authorized administrative and emergency use only *[CR-5]*. The 11.5 miles of "closed" roads will also be inventoried if rehabilitation is needed following closure *[CR-6]*.

Cultural resource inventory needs for 7.93 miles of "open" and 0.2 miles of "limited" trails are discussed below under "Recreation." Of the 1.9 miles of trails to be closed, 0.18 mile has been



inventoried, leaving 1.72 miles to be inventoried before any rehabilitation work is done [CR-7].

*Lands and Realty* - If the BLM acquires the North Edgeholding, it will initially be closed to public entry except access (1) on existing public roads or (2) with prior authorization from the Rio Puerco Field Manager. The restriction on access will be lifted after an assessment of cultural resources (not to exceed two years' duration) has been accomplished, and measures implemented to mitigate potential adverse effects, including avoidance of cultural resources [AT-18].

*Recreation* - The BLM will address the secondary effects of recreational use on cultural resources by requiring inventory of expanded buffer areas around recreational developments [CR-8]. This will accommodate pedestrian activities such as hiking, picnicking, and sightseeing. Cultural resource inventories for parking areas, scenic viewing areas, picnic areas, and similar developments will include a minimum 100-meter-wide buffer. For hiking trails, a minimum 30-meter-wide buffer will be inventoried on each side of the trail, resulting in examination of a 60-meter-wide corridor [CR-9]. Approximately 1.81 miles of "open" trails have already been inventoried, and survey of the remaining 6.32 miles of "open" and "limited" trails will be completed by the end of September 2008 [CR-10].

*Vegetation Treatments* - In sensitive settings, vegetation treatments will be subject to Class III inventory if the use of fire or any form of surface disturbance is proposed, including vehicle use off road and dragging of slash [CR-11]. Based on current information, alluvial valley bottoms (Soil Map Unit 300, see Map 9) and slopes greater than 20 percent are considered not sensitive. Mesa tops and ridge tops are sometimes covered by extensive artifact scatters, which could limit some forms of vegetative treatment.

*Water Resources* - Water wells are located on inholdings or edgeholdings. If these lands are acquired, the BLM will perform cultural

resource inventories to ensure that no damage occurs in association with well use or maintenance [CR-12].

*General* - Aside from the measures described above, no special priority will be given to proactive inventory, protection, or interpretation of cultural resources in the Monument and Southwest Acquisition. Instead, proposals for proactive cultural resource management projects will be based on an evaluation of the importance of the resource, the nature and immediacy of threats to the resource, public demand for interpretation, the cost of the proposed remedy, and the availability of funding. Decisions about funding such projects will be made in the context of the need for similar projects throughout the Albuquerque District.

Activities that involve excavation or collection of cultural materials will be discouraged, and will ordinarily be considered only when such materials face an immediate threat [CR-13]. Archeological resources within the Monument and Southwest Acquisition will be available for scientific study that does not involve excavation or collection of cultural materials [CR-14]. Exceptions to this policy will be made only after extensive consultation with all concerned American Indian tribes.

### *Implementation Decisions*

The BLM will comply with the National Historic Preservation Act through procedures described in the "Protocol Agreement Between New Mexico Bureau of Land Management and New Mexico State Historic Preservation Officer" (signed in June 2004) or any later agreements [CR-3]. The original agreement normally requires intensive archeological survey (BLM Class III inventory) of areas that will be directly affected by a project or action. If archeological resources are found, the preferred course of action is to redesign the project to avoid them. If this is not possible, the BLM will undertake data recovery or other measures developed in consultation with the New Mexico State Historic Preservation Officer to reduce adverse impacts.



### *Support Services*

No support needs have been identified and none are anticipated.

### **Monitoring**

The condition of cultural resources will be monitored periodically as staff and funding permit. A sample of projects with the potential to affect cultural resources will be monitored to ensure that mitigation measures are successful.



*Manzanita—used for medicinal purposes by American Indians.*



## ENVIRONMENTAL JUSTICE

### Goals and Objectives

The BLM must identify, inform, and consult with minority and low-income groups about Federal actions that may affect them, and should not disproportionately impact these groups in an adverse way [EJ-1]. Minority and low-income people will likely be affected by actions in the Monument and Planning Area. Therefore, they have been and will continue to be consulted and kept informed [EJ-2].

### Management Actions

The BLM will continue to identify, inform, and consult with minority and low-income groups about Federal actions that may affect them, and should not disproportionately impact these groups in an adverse way [EJ-1]. Minority and

low-income people will be consulted and kept informed [EJ-2].

### *Allowable Uses and Actions*

Minority and low-income people will be consulted and kept informed [EJ-2].

### *Implementation Decisions*

None.

### *Support Services*

No support needs have been identified and none are anticipated.

### Monitoring

Existing data sources will be used to track environmental justice concerns.



*Yellow Blanket Flower blooms in the Monument, adding a delightful spot of color against the tents.*



## **FIRE MANAGEMENT**

### **Goals and Objectives**

The goals of the Fire Management Program are to utilize approved fire use and mechanical treatments to restore and maintain primary natural resources and their processes where applicable in order to move the landscape from Fire Regime Condition (FRC) Class II and Class III to FRC Class I, as well as to reduce wildland fire hazard around recreational facilities and identified cultural resources [FM-1]. The BLM will apply mechanical fuel reduction and prescribed fire where applicable around vulnerable recreational facilities and prehistoric and historic cultural resources to avoid or reduce the probability of damage from wildland fire [FM-2].

### **Management Actions**

Three previous planning documents addressed fire management in Kasha-Katuwe Tent Rocks National Monument: *Categorical Exclusion NM-010-2003-066: Tent Rocks Wildland-Urban Interface Hazardous Fuels Reduction Project* (USDI, BLM 2003); *Fire and Fuels Management Resource Management Plan Amendment and Environmental Assessment for BLM Lands in New Mexico and Texas* (USDI, BLM 2004b); and *Albuquerque Field Office Fire Management Plan* (USDI, BLM 2004a). The decisions from these planning and NEPA documents have been incorporated into this stand-alone RMP. Lands within the Planning Area that meet the criteria for treatment have been identified as being in FRC Class II or Class III [FM-4]. Kasha-Katuwe Tent Rocks National Monument is identified as a separate Fire Management Unit (FMU). The Planning Area will be managed as FMU B/4 [FM-3] and managed to treat FRC Class II and Class III lands to move their condition toward Class I [FM-4].

### **Allowable Uses and Actions**

The Appropriate Management Response (AMR) for FMU B/4 is to prevent wildland fires from

spreading to private lands, cultural resources or improvements on BLM lands, other agencies' lands, and to protect the public users. AMR will be used to manage all fires in accordance with management objectives based on current conditions and fire location [FM-5].

### **Implementation Decisions**

Fire management treatments will be applied on acreages and areas identified on Map 5 to move the FRC class from Classes II and III toward Class I [FM-4]. The BLM will use Best Management Practices for vegetation treatments (see Appendix C) [VW-4]. Treatments will be prioritized based on percent slope, FRC class, access, and ownership of the areas to be treated. Only areas having slopes less than 15 percent (2,236 acres in the Planning Area) will be treated.

The NM Standards for Public Land Health (USDI, BLM 2000a) will be complied with in implementing fire management treatments [FM-6].

As part of the riparian development program, prescribed fires will be implemented for parts of the Peralta Canyon stream channel to reduce the cover of shrub species [RIP-5].

BLM Road 1011 may be closed seasonally in T. 17 N., R. 4 E., Section 30 for fire protection [AT-19].

### **Support Services**

#### **- Cadastral Survey**

Cadastral survey may be needed to identify boundaries to avoid implementing fire use and mechanical treatments on private lands without authorization.

### **Monitoring**

Information will be collected on the fire and fuels treatment areas to determine the effectiveness of the program.



## HAZARDOUS MATERIALS/ SOLID WASTE

### Goals and Objectives

The BLM investigates reported hazardous materials/solid waste sites, and initiates containment and/or removal actions on a case-by-case basis. Sites that are reported will be handled under current regulations, with potentially responsible parties identified and pursued based on best available information [H<sub>2</sub>M-1].

### Management Actions

No hazardous materials/solid waste sites are known to exist within the Planning Area. The BLM relies on routine fieldwork activities and non-BLM sources to discover and report spills or other releases of hazardous materials/solid wastes on public lands.

### *Allowable Uses and Actions*

The BLM investigates reported hazardous materials/solid waste sites, and initiates containment and/or removal actions on a case-by-case basis. Sites that are reported will be handled under current regulations, with potentially responsible parties identified and pursued based on best available information [H<sub>2</sub>M-1].

### *Implementation Decisions*

None.

### *Support Services*

- Cadastral Survey

Cadastral survey may be needed to determine ownership of lands at spill sites.

### Monitoring

Monitoring would result as a follow up to incident cleanups.



*Wildflowers, such as this Penstemon are commonly seen along the trails in the Monument.*



## LANDS AND REALTY

### Goals and Objectives

The goals of the Lands and Realty Program are to continue to acquire land and easements within the Planning Area, to protect the resources for which the Monument was established, and to ensure that any rights-of-way or land use permits issued are consistent with management goals for other resource programs and uses *[LR-1]*.

### Management Actions

By proclamation, all Federal lands and interests in lands within the boundaries of the Monument are withdrawn from all forms of entry, location, selection, sale, leasing, or other disposition under the public land laws. This withdrawal applies under (but is not limited to) the mining laws and all laws relating to mineral and geothermal leasing. The only exception to this withdrawal would be an exchange that would further the protective purposes of the Monument.

Lands and interests in lands within the Monument boundaries not owned by the United States are reserved as a part of the Monument if title to them is acquired by the United States.

### *Allowable Uses and Actions*

The Monument is subject to valid existing rights *[LR-2]*.

Nothing in the Proclamation revokes any existing withdrawal, reservation, or appropriation; however, the Monument is the dominant reservation *[LR-3]*.

No person may use, injure, destroy, or remove any feature of the Monument without authorization, nor locate nor settle upon any of the lands *[LR-4]*.

The *Protection Plan for Tent Rocks ACEC* (USDI, BLM 1987) included discussions of Cooperative Agreements with non-Federal landowners who would provide land with uses com-

plementary to the ACEC values. These values have now become Monument values, and non-Federal lands within and adjoining the Monument will be acquired whenever willing sellers are available *[LR-5]*. The BLM will continue to seek Cooperative Management Agreements with non-Federal landowners if acquisition is not possible *[LR-6]*. While the Proposed RMP/Final EIS was being prepared, the New Mexico State Land Office (SLO) acquired ownership of what had been the University of New Mexico property known in this document as the "North Edgeholding" (see Map 3). This adjoining parcel of approximately 9,268 surface acres is located north and northeast of the Monument. The BLM has discussed acquisition of these lands with the SLO.

Lands and Realty management involves approximately 15,635 acres of surface and mineral ownership within the Planning Area, including the non-Federal lands recommended for acquisition (see Table 1-1). At the signing of the Record of Decision, surface ownership was 5,089 acres Federal, 9,789 acres State, and 757 acres private. The BLM will manage the 5,089 acres of Federal surface under the RMP decisions contained in this document. The other 10,546 acres will be managed by owner decision or, where possible, by Cooperative Management Agreement to provide for some level of public use *[LR-6]*. If willing sellers are available in the long term, the BLM will seek to acquire the 1,278 acres of non-Federal land within the Monument and the 9,268-acre North Edgeholding to complement management of Monument values *[LR-5]*.

The Federal government owns 4,565 acres of minerals beneath the Monument. This acreage has been withdrawn from mineral entry by conditions of the Proclamation *[LR-7]*. As other minerals are acquired within the Monument, they will also be withdrawn from mineral entry under the Proclamation *[LR-8]*.

All minerals under the 965-acre Southwest Acquisition are in Federal ownership. The North Edgeholding (9,268 acres) has split mineral ownership, with gold, silver, and quicksilver/



mercury in Federal ownership and all other minerals in non-Federal ownership. The BLM will seek to acquire these mineral rights along with the surface. The BLM will withdraw all Federal minerals within the Planning Area, subject to valid existing rights *[LR-9]*.

### *Implementation Decisions*

The 5,402 acres designated by Presidential Proclamation 7394 as the National Monument will also continue to be designated as an Area of Critical Environmental Concern (ACEC) *[LR-10]*. The Monument/ACEC will be managed for Proclamation and ACEC resource values. Management emphasis for the area will continue to be on the interpretation of geologic and scenic values, and on intensive recreational uses, especially semi-primitive non-motorized recreation opportunities *[LR-11]*.

These values will also be emphasized on lands acquired and managed in conjunction with the Monument *[LR-12]*.

The 965-acre Southwest Acquisition recently purchased by the BLM will be managed in conjunction with the Monument, and is recommended for inclusion as part of the Monument (which would require Congressional legislation) *[LR-13]*.

The BLM will seek to acquire the 1,278 surface acres (521 acres State, 757 acres private) within the Monument boundaries not presently in Federal ownership through exchange or purchase from willing sellers *[LR-5]*. The 837 acres (521 acres State, 316 acres private) of non-Federal mineral ownership in the Monument will likewise be acquired if owners are willing. As other minerals are acquired within the Monument, they will also be withdrawn from mineral entry under the Proclamation *[LR-8]*.

Lands and interests in lands acquired within the Monument boundary will become part of the Monument and ACEC. These will be withdrawn from entry or disposal except by exchange, as provided in the Proclamation *[LR-14]*.

The 9,268-acre State-owned North Edgeholding is also identified for acquisition by exchange or purchase, and for management in conjunction with the Monument *[LR-5]*. It is also recommended for inclusion in the Monument (which would require Congressional legislation) *[LR-15]*. All mineral rights with this parcel are in non-Federal ownership except gold, silver and quicksilver, which are Federally owned. The non-Federal minerals will be acquired, if possible, to protect the Monument's resource values *[LR-9]*.

If the North Edgeholding is acquired, it will initially be closed to public entry except access (1) on existing public roads or (2) with prior authorization from the Rio Puerco Field Manager. The BLM may allow a two-year period of resource survey and evaluation before making land and resource allocations. The BLM may provide guided tours in the interim. After consulting with potentially affected American Indian tribes, carrying out resource data inventory, including assessment of cultural resources, and implementing measures to mitigate potential adverse effects to cultural resources and other resources, the area will be opened with appropriate restrictions *[AT-18]*.

If acquisitions within the Monument boundaries are not completed, the BLM will seek to acquire a 1.05-mile easement on the portion of BLM Road 1011 that crosses private surface *[LR-16]*. This will ensure Federal control of access through the Monument.

If non-Federal lands cannot be acquired, the BLM will seek management control through agreements with landowners *[LR-6]*. These agreements will be focused on improving management efficiency and visitor services, and on protecting Monument resource values and non-Federal property rights.

While recognizing valid existing rights, the BLM will consider the Planning Area to be a right-of-way exclusion area. Rights-of-way for uses that do not currently exist will not be considered except for those that would support Monument purposes *[LR-17]*.



### ***Support Services***

#### **- Cadastral Survey**

Support services needed include ownership and boundary determinations for lands to be acquired or for which easements are needed.

### **Monitoring**

Any rights-of-way in the Planning Area will be inspected according to a schedule established for each right-of-way to ensure compliance with the requirements of the BLM right-of-way regulations and this RMP.



*View towards Intensive Visitor Use Area from BLM Road 1011.*



## LIVESTOCK GRAZING

### Goals and Objectives

The BLM's goals in permitting livestock grazing on public land, as stated at 43 CFR 4100.0-2, are as follows *[LG-1]*:

- Promote healthy, sustainable rangeland ecosystems *[LG-1a]*.
- Accelerate the restoration and improvement of public rangelands to properly functioning condition *[LG-1b]*.
- Promote the orderly use, improvement, and development of the public lands *[LG-1c]*.
- Provide for the sustainability of the western livestock industry and communities that are dependent upon productive, healthy rangelands *[LG-1d]*.
- Establish efficient and effective administration of grazing on public rangelands *[LG-1e]*.

Livestock grazing must be achieved in a manner consistent with land use plans, the principles of multiple use and sustained yield, environmental values, economic and other objectives stated at 43 CFR 1610, the Taylor Grazing Act of June 28, 1934, as amended (43 U.S.C. 315); and Section 102 of the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1740).

### Management Actions

Presidential Proclamation 7394 states, "The Secretary of the Interior shall retire the portion of the grazing allotments within the Monument, pursuant to applicable law, unless the Secretary specifically finds that livestock grazing will advance the purposes of the Proclamation."

In accordance with the Proclamation, livestock grazing use will be discontinued on the 4,088 acres of Federal land currently under two Federal grazing permits within the Monument *[LG-2]*. Acreage closed to grazing will be fenced and range developments removed if they are not converted to another purpose (e.g., wildlife waters, recreational uses) *[LG-3]*. Short-

duration grazing on Federal land within the Planning Area may be allowed under a non-renewable grazing permit if the BLM determines it will advance the purposes of the Proclamation *[LG-4]*. If such use is allowed, it is expected that it will be focused on helping to attain specific vegetative and ecological objectives.

### *Allowable Uses and Actions*

Before permitting short-term livestock grazing on Federal land within the Planning Area, the BLM will prepare an environmental assessment to determine the impacts of the proposed grazing use *[LG-5]*. If grazing use is approved, the BLM will issue a non-renewable grazing permit with terms for the proposed grazing period *[LG-6]*. As stated in the grazing regulations at 43 CFR 4100, non-renewable grazing permits may be issued on an annual basis to qualified applicants when forage is temporarily available, provided that this use is consistent with multiple use objectives and does not interfere with existing livestock operations on public land.

Under the requirements of Presidential Proclamation 7394, livestock grazing will be discontinued in the Monument unless it advances the purposes of the Proclamation *[LG-2]*. The BLM may permit seasonal, short-duration, non-renewable opportunities for domestic livestock grazing to meet specific ecological objectives *[LG-4]*. This type of temporary authorized use could include integrated weed management (e.g., grazing of saltcedar and other invasive or noxious plants by livestock, intense grazing of downy brome in early spring), grazing to reduce fine fuels, intense livestock presence and supplemental feeding (not rangeland grazing) to produce "hoof impact" and distribute litter and seeds into the disturbed soil surface.

As part of these short-duration permits, the BLM would specify terms and conditions for grazing to meet ecological and vegetative resource objectives [e.g., number and kind of livestock, period of use, percent allowable use, desired amount of residual vegetation (stubble heights) to be left post-grazing, specified areas for grazing or nonuse for monitoring, herding of ani-



imals]. Any proposed grazing studies must improve the knowledge and understanding of the Planning Area, and sustain the purposes of the Proclamation.

Federally owned range improvements that cannot be effectively converted to such uses as wildlife waters or recreational uses will be removed [LG-3]. Privately owned range improvements will be removed by the permittee or purchased by the BLM, at fair market value, if they can be converted to other uses [LG-7]. Areas closed to grazing will be fenced [LG-3].

### ***Implementation Decisions***

The following two actions are expected to improve vegetative and land health, watershed condition, and wildlife habitat condition in the short term on the specified lands (see Map 6): (1) livestock grazing on the 4,088 acres of Federal lands within the Monument currently under grazing permit will be discontinued [LG-2], and

(2) no grazing permit will be issued for the 965-acre Southwest Acquisition [LG-8]. If, in time, the BLM determines that short-duration grazing would help to achieve specific vegetative or ecological objectives within the Planning Area, a non-renewable permit for such use may be issued [LG-4].

### ***Support Services***

#### **- Cadastral Survey**

Cadastral survey is needed to determine where fences should be placed to avoid livestock trespass into the Monument.

### **Monitoring**

Monitoring would be required to determine the effectiveness of grazing used as a tool for "advancing the purposes of the Proclamation" if any short-duration grazing is allowed.



## NOXIOUS WEED MANAGEMENT

### Goals and Objectives

The goals and strategies identified in the BLM Partners Against Weeds (PAWS) action plan (USDI, BLM 1996) will be implemented as needed for noxious weed management for the Rio Puerco Field Office [NW-1]. A summary of portions of the PAWS action plan which need to be implemented immediately follows:

#### *Goal 1 - Prevention and Detection*

The Field Office will delineate high priority areas for prevention of noxious weed infestation. Review and modify, where necessary, all activities authorized or conducted on BLM land for their potential to spread weeds. This includes evaluating the potential for noxious weed invasion in the effects analysis of each NEPA document. Newly introduced weed species will be identified and documented [NW-1a].

#### *Goal 2 - Education and Awareness*

The Field Office will conduct workshops for all field personnel to update their knowledge of noxious weeds, to include identification and the problems noxious weeds can cause. The Field Office will continue to work to establish county weed associations in developing and implementing outreach plans [NW-1b].

#### *Goal 3 - Inventory*

The Field Office will monitor all known populations of noxious weeds and update the inventory as needed on a yearly basis [NW-1c].

#### *Goal 4 - Planning*

Include provisions for noxious weed management in all BLM-funded or -authorized actions. See Weed Prevention Schedule, Appendix B [NW-1d].

#### *Goal 5 - Integrated Weed Management (IWM)*

The Field Office will determine the best management options using a combination of the four

general categories identified for weed management—Cultural, Physical Control, Biological Control, and Herbicides (see Appendix B) [NW-1e].

#### *Goal 6 - Coordination*

The Field Office will continue and expand cooperation with other Federal agencies, State and county governments, organizations, and private landowners in the fight against weeds [NW-1f].

#### *Goal 7 - Monitoring, Evaluation, Research, and Technology Transfer*

The Field Office will continue to work with the Cooperative Extension Service and others on research for control methods for noxious weeds. Monitoring programs will be established to determine if the BLM is meeting its management objectives with weed management programs [NW-1g].

### Management Actions

One exotic invasive weed species occurs extensively on Federal land within the Planning Area, downy brome grass or "cheatgrass" (*Bromus tectorum*). This grass has spread throughout New Mexico and the Western United States, and the likelihood of successfully controlling it is low.

A few isolated individual saltcedar plants grow in the vicinity of the old pumice mines and in the bottom of Peralta Canyon. The Southwest Acquisition has a small population of exotic thistles. These isolated populations are considered to be easily controllable, while the cheatgrass will likely be very difficult to control.

#### *Allowable Uses and Actions*

Monitoring and a vigorous integrated weed management program will be a part of Planning Area management (including on acquired land), in accordance with the Standard Operating Procedures found in Instruction Memorandum



NM-010-99-01 (“Noxious Weed Prevention Schedule for Albuquerque Field Office”—see Appendix B) [NW-2]. Any Cooperative Agreement that is developed for land use will also include provisions for weed monitoring and treatment [NW-3].

### ***Implementation Decisions***

Noxious weed identification and treatment will be emphasized in the 241-acre intensive visitor use area to reduce weed introduction by recreation users [NW-4].

### ***Support Services***

No support needs have been identified and none are anticipated.

### ***Monitoring***

The Field Office will monitor all known populations of noxious weeds and update the inventory as needed on a yearly basis to determine if the BLM is meeting its weed management objectives. Ground-disturbing activities will be monitored for the life of the project for the presence of noxious weeds. Reclamation and revegetation areas will be monitored to determine the weed-free success of the revegetation, and revegetation will continue until successful.



*Saltcedar in bloom.*



## PALEONTOLOGY

### Goals and Objectives

Paleontological (fossil) resources are of concern and require protection. Federal, State, and private lands within the Planning Area boundaries have the potential for paleontological resources. The BLM's goal for managing these resources is to provide a consistent and comprehensive approach to identification, evaluation, protection, and use [P-1].

### Management Actions

No overriding Federal law specifically addresses paleontological resources. Management of the resource is directed principally under the Federal Land Policy and Management Act and the National Environmental Policy Act. The following also afford protection of paleontological resources: the Antiquities Act of 1906, National Natural Landmarks Program under the Historic Sites Act of 1935, Executive Order 11593 (Protection and Enhancement of the Cultural Environment) of 1971, National Historic Preservation Act of 1966 (as amended), Federal Cave Resource Protection Act of 1988 (P.L. 100-691), and Secretarial Order 3104. Various subparts of Title 43 of the Code of Federal Regulations address the collection of invertebrate fossils, fossil plants, and protection of paleontological resources from operations authorized under the mining laws.

### *Allowable Uses and Actions*

Any ground-disturbing activities on public land in the Planning Area will be considered on a case-by-case basis for the need to mitigate potential impacts to fossil resources [P-2].

The Proclamation states that no person may use, injure, destroy, or remove any feature of this Monument without authorization, nor locate nor settle upon any of the lands. This prohibition applies to invertebrate and vertebrate fossils, as well as plant fossils [P-3].

Fossils are relatively rare, fragile, and nonrenewable resources. Although no fossil resources have been documented within the Planning Area, if any are identified, they will be evaluated, managed, and protected on a case-by-case basis. Visitors will be encouraged to report fossil discoveries to the BLM [P-4].

### *Implementation Decisions*

None.

### *Support Services*

No support needs have been identified and none are anticipated.

### Monitoring

Monitoring requirements will be established if fossil resources are identified in the Planning Area.



## PUBLIC LAND HEALTH

### Goals and Objectives

Objectives for public land health are found at 43 CFR 4180.1, which mandates the following conditions:

- Watersheds are in—or are making significant progress toward—properly functioning physical condition (including their upland, riparian-wetland, and aquatic components) *[PLH-1a]*.
- The soil and plant conditions support infiltration, soil moisture storage, and the release of water in balance with climate and landform *[PLH-1b]*.
- The soil and plant conditions maintain or improve water quality, water quantity, and timing and duration of flow *[PLH-1c]*.
- Ecological processes—including the hydrologic cycle, nutrient cycle, and energy flow—are maintained, or there is significant progress toward their attainment, to support healthy biotic populations and communities *[PLH-1d]*.

### Management Actions

#### *Allowable Uses and Actions*

The New Mexico Standards for Public Land Health and Guidelines for Livestock Grazing Management (USDI, BLM 2000a), approved by the Secretary of the Interior's Decision of January 12, 2001, are carried forward into this RMP *[PLH-2]*. These standards include: (1) the upland sites standard; (2) the biotic communities standard (including native, threatened, endangered, and special status species); and (3) the riparian sites standard. The standards are described as follows:

*Upland Sites Standard* - Upland ecological sites are in a productive and sustainable condition within the capability of the site. Upland soils are stabilized and exhibit infiltration and permeability rates that are appropriate for the soil type, climate, and landform. The kind, amount,

and/or pattern of vegetation provide protection on a given site to minimize erosion and assist in meeting State and tribal water quality standards *[PLH-2a]*.

Indicators for this standard may include but are not limited to:

- Consistent with the capability of the ecological site, soils are stabilized by appropriate amounts of standing live vegetation, protective litter, and/or rock cover.
- Erosion is indicated by flow pattern characteristics of surface litter soil movement, gullies and rills, and plant pedestalling.
- Satisfactory plant protection is indicated by the amount and distribution of desired species necessary to prevent accelerated erosion.

*Biotic Communities Standard (Including Native, Threatened, Endangered, and Special Status Species)* - Ecological processes such as hydrologic cycle, nutrient cycle, and energy flow support productive and diverse native biotic communities, including special status, threatened, and endangered species appropriate to site and species. Desired plant community goals maintain and conserve productive and diverse populations of plants and animals which sustain ecological functions and processes. Restoration should first be achieved with native, and when appropriate, non-native plants *[PLH-2b]*.

Indicators for this standard may include but are not limited to the following:

- Commensurate with the capability of the ecological site, plant and animal populations are:
  - Productive
  - Resilient
  - Diverse
  - Sustainable
- Landscapes are composed of communities in a variety of successional stages and patterns.
- Diversity and composition of communities are indicated by the kinds and amount of species.



- Endangered and special status species are secure and recovering, with the goal of de-listing and ensuring that additional species need not be listed within New Mexico.

*Riparian Sites Standard* - Riparian areas are in a productive, properly functioning, and sustainable condition, within the capability of that site. Adequate vegetation of diverse age and composition is present that will withstand high stream flow, capture sediment, provide for groundwater recharge, provide habitat, and assist in meeting State and tribal water quality standards [PLH-2c].

Indicators for this standard may include but are not limited to:

- Stream channel morphology and stability as determined by:
  - Gradient
  - Width/depth ratio
  - Channel roughness
  - Sinuosity
- Streambank stability as determined by degree of:
  - Shearing and sloughing
  - Vegetative cover on the bank
- Appropriate riparian vegetation includes a mix of communities comprised of species

with a range of:

Age  
Density  
Growth form

### ***Implementation Decisions***

The New Mexico Standards for Public Land Health and Guidelines for Livestock Grazing Management (USDI, BLM 2000), approved by the Secretary of the Interior's Decision of January 12, 2001, are carried forward into this RMP [PLH-2]. The standards (described above) include: (1) the upland sites standard; (2) the biotic communities standard (including native, threatened, endangered, and special status species); and (3) the riparian sites standard.

### ***Support Services***

No support needs have been identified and none are anticipated.

### ***Monitoring***

As resource development projects are implemented, they will be monitored to ensure that they are contributing to the maintenance or establishment of land health.



*After a great winter of snowfall Tent Rocks had welcome waterflow.*



## RECREATIONAL USES

### Goals and Objectives

The management goals for the BLM's Outdoor Recreation Program are as follows [RU-1]:

- Provide a broad spectrum of resource-dependent recreational opportunities to meet public needs and demands [RU-1a].
- Foster agency-wide efforts to improve services to the visiting public [RU-1b].
- Maintain high-quality recreation facilities to meet public needs and enhance the image of the agency [RU-1c].
- Improve public understanding and support by effectively communicating the BLM's mission of multiple-use management to visitors [RU-1d].

For Kasha-Katuwe Tent Rocks National Monument, the following additional objectives apply: Through the Cooperative Agreements between the Pueblo de Cochiti and the BLM, the two entities strive to achieve the following [RU-2]:

- Enhance the manageability of the Monument [RU-2a].
- Provide for resource protection, and visitor health and safety [RU-2b].
- Provide outstanding customer service for visitors while controlling visitor use [RU-2c].
- Provide for economic opportunity through employment and services [RU-2d].
- Ensure continuity of traditional tribal practices [RU-2e].
- Maintain tranquility for the Pueblo de Cochiti [RU-2f].

### Management Actions

#### *Allowable Uses and Actions*

As stated in the Proclamation, "for the purpose of protecting the objects identified, the Secretary shall prohibit all motorized and mechanized vehicle use off road, except for emergency or authorized administrative purposes" [RU-3].

The management actions of the Plan are expected to stabilize visitation at approximately 50,000 visitors per year to minimize intrusion and resource degradation.

The BLM will continue to manage the Monument as a fee site, as originally authorized by the Department of the Interior and Related Agencies Appropriations Act of 1996 (P.L. 104-134) [RU-4]. The agency will collect, retain, and reinvest collected fees at this site under the authority of the Federal Lands Recreation Enhancement Act of 2004 (P.L. 108-447), which has replaced the previous fee collection authority.

The Federal Land Policy and Management Act and the Land and Water Conservation Fund Act empower the BLM to issue Special Recreation Permits according to its own procedures and fee schedules for uses such as group activities, commercial recreational tours, and other special recreational uses. Issuing permits is mandatory for commercial and non-commercial recreation-related uses of BLM-administered Federal lands. The BLM may also require permits for any uses in special areas like the Monument where the agency determines that the law requires it. When issuing permits at Kasha-Katuwe Tent Rocks National Monument, the agency will continue to follow the guidelines found in the BLM Manual and Handbook H-2930-1, "Recreation Permit Administration."

For the following recreational elements, BLM management of recreation on the 5,089 acres of Federal land in the Planning Area is as follows (see Table 2-4):

- The *Recreation Opportunity Spectrum (ROS) system* (see Appendix E) divides the area into three visitor experience zones—semi-primitive motorized use (2,048 acres), semi-primitive non-motorized use (1,054 acres), and roaded natural use (1,987 acres) (see Map 7) [RU-5].
- *Hiking use* will be available on 5.23 miles of trail and *combined hiking and equestrian use* will be available on 2.9 miles of trail [AT-6].
- 5.95 miles of roads will be *open to public use by motorized or mechanized vehicles* [AT-2];



TABLE 2-4

**ELEMENTS OF RECREATIONAL USE IN THE MONUMENT  
& SOUTHWEST ACQUISITION**

Element	Description	Comments
Intensive visitor use area/fee site	241 Federal acres around National Recreation Trail and Scenic Overlook—existing facilities	Day-use visitor facilities and services provided (fee site includes areas with special geologic features)
Dispersed visitor use area	4,848 Federal acres—the BLM will work with private landowners to provide additional recreation opportunities and to assist in preventing trespass	No BLM-built visitor facilities provided (except as needed for resource protection, or visitor health, safety and convenience)
Collector roads	5.9 miles	(See Tables 2-1 and 2-2)
Resource roads	5.5 miles	(See Tables 2-1 and 2-2)
Primitive roads	2.35 miles	(See Tables 2-1 and 2-2)
Roads open to public use by motorized or mechanized vehicles	5.95 miles (designated roads)	(See Tables 2-1 and 2-2)
Roads limited to authorized administrative or emergency use only	7.8 miles	(See Tables 2-1 and 2-2)
Roads closed	11.5 miles—includes 0.7 mile to be converted to hiking use	(See Tables 2-1 and 2-2)
Roaded Natural (see Appendix E)	1,987 acres (39%)	Buffer zone based around BLM Road 1011, a “better than primitive” road
Semi-Primitive Motorized (see Appendix E)	2,048 acres (40%)	Primitive and resource roads, use on all but 0.05 mile limited to authorized administrative or emergency use only
Semi-Primitive Non-motorized (see Appendix E)	1,054 acres (21%)	No road access
Hiking trails	5.23 miles	(See Table 2-3)
Hiking/equestrian trails	2.9 miles	(See Table 2-3) Equestrian use by permit only on case-by case basis
Equestrian use (dispersed)	Federal lands south and west of BLM Road 1011	By permit only on case-by-case basis
Mountain bike use	Allowed on BLM Road 1011 only*	*When open to public use
Research & educational activities	Federal lands in Planning Area	By special-use permit only on case-by-case basis
North Edgeholding (Cañada de Cochiti property)	9,268-acre State parcel in Planning Area proposed for acquisition	If acquired: <ul style="list-style-type: none"> <li>• May be closed to general visitation until resources assessed (assessment not to exceed 2 years duration)</li> <li>• Guided tours may be provided in interim</li> </ul>



7.8 miles of roads will be *limited to authorized administrative or emergency use only* [AT-3].

- Manage the 241 acres around the picnic facilities, National Recreation Trail, scenic overlook, and special geologic features for *intensive visitation and use* [RU-6].
- Manage the remaining 4,848 acres for *dispersed visitation and use*, with no BLM facilities being built, except as needed for resource protection, or visitor health, safety and convenience [RU-7].
- Apply the *rules of conduct* for the protection of public land resources and visitors (as established at 43 CFR 8365).
- *Emphasize day use* and prohibit camping or overnight occupancy [RU-8].
- *Collect, retain, and reinvest collected fees* at Kasha Katuwe-Tent Rocks National Monument.
- *Continue the Cooperative Agreement with the Pueblo de Cochiti for assistance* in fee collection.
- Maintain BLM Road 1011/Forest Service Road 266/Tribal Road 92 through the Inter-Governmental Agreement with the Pueblo de Cochiti to allow *continued public access* to and through the Planning Area. The BLM, the Pueblo, and Sandoval County will be involved in this maintenance.
- Issue *Special Recreation Permits* for commercial and non-commercial recreation-related uses (e.g., group activities, commercial recreational tours), and for any other uses for which the BLM determines a permit is needed to support the recreation management objectives of the area and serve the public interest.
- Issue *special-use permits for research and educational activities* on a case-by-case basis.
- Use *interpretive tools* (e.g., signs, kiosks, brochures, websites, and on-the ground presence) to help protect the objects of cultural, biological, and geologic interest by enabling visitors to understand and appreciate these resources [RU-9].

Approval of the Record of Decision has changed the designation of the Planning Area from

“ORV/OHV use limited to existing roads and trails” to “OHV use limited to designated roads and trails” for motorized and mechanized modes of travel [RU-10]. This change reduces the mileage available for public use within the Planning Area, as identified in the “Access and Transportation” section. Approximately 0.7 mile of an existing road will be closed to motorized use and converted to pedestrian use [AT-9]. This will add to the existing trail system within the Planning Area that provides access to recreation resources. *Mountain bikes* and limited forms of *motorized vehicles* (except all-terrain vehicles and dirt bikes) will be allowed on the primary access road (BLM Road 1011) through the Planning Area when the road is open to public use [RU-11]. *Equestrian use* will be authorized on a case-by-case basis and directed to Federal lands in the Monument and Southwest Acquisition that are south and west of BLM Road 1011 [RU-12]. BLM Road 1011/FS Road 266/TR 92 and designated travel routes will be scheduled to receive maintenance.

The BLM will maintain existing *visitor facilities* in the intensive use area [RU-13], and build new ones, including hard-surfacing 5.9 miles of BLM Road 1011, as needed for resource protection, or visitor health, safety and convenience [RU-14]. The BLM will also work with other landowners in the Planning Area (1) to provide additional opportunities, where appropriate, to view the special geologic features and scenic values, and expand recreational use of the area, as well as (2) to prevent unwanted trespass on non-Federal lands [RU-15].



Visitors enjoy lunch at one of the many picnic tables.



The BLM will make *drinking water* available for visitors in or near the Monument [RU-16]. Various alternative methods will be considered, including those listed below. Water pipelines, if used, will be buried adjacent to BLM Road 1011/Tribal Road 92, as much as possible, to reduce surface disturbance.

1. Drill a well with a well house that would include treatment facilities, a water pipeline delivery system, a storage tank with at least a 12,000-gallon capacity, and frost-free hydrants.
2. Use an existing well on Pueblo de Cochiti Tribal land, State, or private land. This would require:
  - a. Authorization through agreements, land exchange, or acquisition by purchase;
  - b. Testing for flow and water quality; and
  - c. Installation of water pipelines.
3. Sell bottled water.

If the North Edgeholding is acquired, the BLM may close it to general visitation for up to two years following acquisition, providing *guided tours* in the interim. After consulting with potentially affected American Indian tribes, carrying out resource data inventory, including assessment of cultural resources, and implementing measures to mitigate potential adverse effects to cultural resources and other resources, the *area will be opened* with appropriate restrictions [AT-18]. The BLM will *utilize the provisions of the Cooperative Management Agreement with the Pueblo de Cochiti for assistance* during the closure to provide an on-the-ground presence until further resource studies are completed [RU-17].

While studies are ongoing, riparian study areas alongside the Peralta Canyon stream channel will be designated as off limits to such recreational uses as hiking and horseback riding to avoid damage to riparian habitat [RIP-10].

### *Implementation Decisions*

Under the Recreation Opportunity Spectrum classification, public motorized access is provided to approximately 1,987 Federal acres of the Planning Area. Limited motorized access

for authorized administrative or emergency uses only is provided to another 2,048 acres. Non-motorized access is available to approximately 1,054 Federal acres (see Map 7) [RU-5].

The BLM will designate Federal lands within the Planning Area (including any acquired lands) as a Special Recreation Management Area (SRMA) [RU-18]. Acquired lands will be operated under the rules at 43 CFR 8365, as they support the purposes of the Proclamation.

The Monument and Southwest Acquisition will be identified for day use only [RU-8]. If acquired, other parts of the Planning Area will also be day use only, unless a detailed evaluation (including a site-specific environmental analysis) of the resources in portions of the acquired lands shows capabilities of supporting camping without undue resource degradation [RU-19]. Acquired lands will also be studied for their suitability for equestrian use, including overnight pack trips [RU-20].

Hunting regulation will be coordinated with the New Mexico Department of Game and Fish [RU-21].

Special geologic features, mainly the “tent rocks” themselves, will be protected on 167 acres of Federally owned lands in the Monument for visitor viewing and observation. Proposed acquisitions, if completed, could increase this area to as many as 2,284 acres. These features contribute to the remarkable outdoor laboratory identified in the Proclamation.

Visual Resource Management (VRM) Class II designation will be maintained on Federal lands, except on the 1,202-acre VRM Class III area provided to allow for facility improvement (see Map 11) [VR-3, VR-4]. Acquired lands will be inventoried and placed in one of these two classes based on the extent of cultural modification to the landscape; the need to implement future management actions or install facilities to accommodate visitor services; and the need for resource protection and rehabilitation [VR-6].

Noxious weed identification and treatment will be emphasized in the 241-acre intensive use area



to reduce weed introduction by recreation users [NW-4].

### ***Support Services***

#### **- Lands and Realty**

Lands and Realty support is needed for acquisition of public access across non-Federal lands.

Lands and Realty support is also needed for acquisition of non-Federal lands identified in support of recreation use and development throughout the Planning Area.

#### **- Cadastral Survey**

Cadastral survey is a support service needed for establishment of ownership boundaries to prevent trespass on non-Federal property. Cadastral survey may also be needed to ensure proper location of recreational facilities within the Monument and Planning Area.

#### **- Engineering**

Engineering services will be needed for design, construction, and maintenance of visitor service, resource protection, and other appropriate recreation facilities to ensure the long-term use and enjoyment of the resources of the Monument.

### **Monitoring**

The BLM will monitor visitor use on the Federal land in the Planning Area to quantify the number of recreational visits, types of recreational activities and use patterns, accomplishment of management objectives, and potential adverse impacts to resources and visitor experiences. The results of the monitoring will provide opportunities to identify actions to protect resources, enhance visitor experiences, and deal with health and safety needs in the area.

The monitoring program may include such actions as:

- Patrolling roads, trails, and areas to observe where recreation use is concentrated.

- Installing trail and road traffic counters and site registers.
- Establishing photo points in critical areas to monitor change.
- Surveying visitors to better understand their values and expectations while using the area.

Monitoring will help the BLM to detect and document natural and human-induced changes in resource conditions and visitor experiences, and offer insights into the effectiveness of resource management policies and objectives. It will also help the BLM to understand what might be driving the changes requiring intervention (corrective management actions or strategies).

If funding and staff are available, the BLM will develop indicators and standards for monitoring to help determine if Monument resources are being adequately protected as directed in the Proclamation, and if the desired visitor experiences are being provided. Measurable indicators, including linear soil erosion baselines, photo points of manzanita, road/trail counters, and visual monitoring, will be selected for monitoring key aspects of the resources and visitor experiences. Standards represent points at which resource conditions and visitor experiences become unacceptable, not goals or desired conditions, but trigger points for determining when conditions have become unacceptable or are trending towards unacceptable.

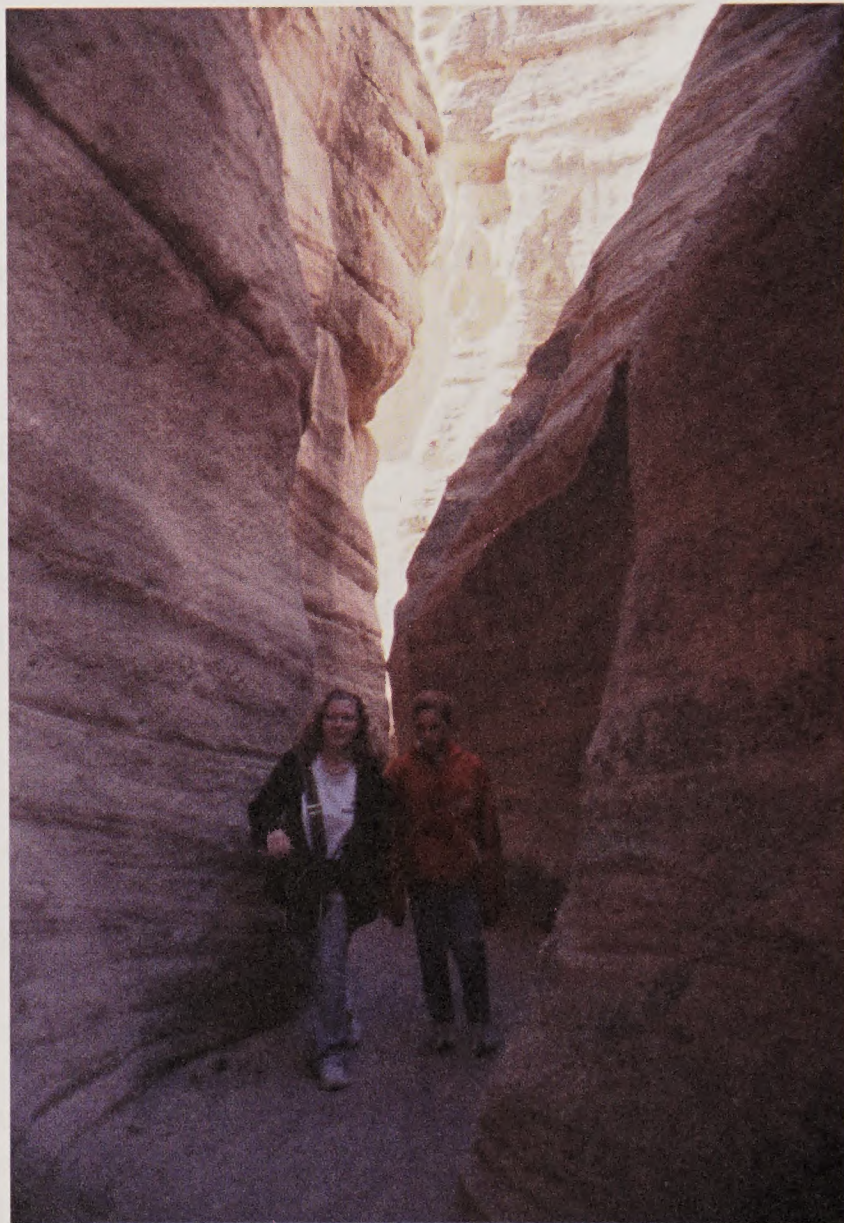
Monitoring results will be made available in a usable form and archived for future reference. Reports will be prepared each year, near the end of the calendar year, so they can be studied before the beginning of the next primary use and growing season, and needed management actions can be initiated.

Monitoring will be directed at areas in which specific and important resource values and visitor experiences could be threatened. The Monument and Southwest Acquisition are experiencing increasing use that is affecting resources, infrastructure, and management. Some of the more common impacts to resources as the result of the increasing use are trail deterioration, picnic area deterioration, wildlife impacts, soil compaction, erosion, and loss of vegetation.



Some of the more common impacts to the visitor experience resulting from increased use are crowding, visitor conflicts, pets not under con-

trol, non-compliant behavior, trespass on non-Federal lands, undesirable traffic conditions on the roads, and lack of available parking spaces.



*Two students explore the Slot Canyon while on a school field trip.*



## RIPARIAN AREAS

### Goals and Objectives

The management goals for the Riparian Program are to maintain, restore, improve, protect, and expand riparian-wetlands areas for their productivity, biological diversity, and sustainability so that they are in properly functioning condition *[RIP-1a]*. These goals were established in the *Environmental Impact Statement for Riparian and Aquatic Habitat Management in the Albuquerque Field Office* (USDI, BLM 2000b).

The BLM's Land Use Planning Handbook H-1601-1 directs the agency to "Identify watersheds that may need special protection from the standpoint of human health concerns, aquatic ecosystem health, or other public uses. For riparian areas, identify desired width/depth ratios, streambank conditions, channel substrate conditions, and large woody material characteristics" *[RIP-1b]*.

### Management Actions

#### *Allowable Uses and Actions*

The BLM will attempt to acquire the State and private inholdings in the Planning Area *[LR-5]*. If these acquisitions are completed, the BLM will manage an additional 1.62 miles of the Peralta Canyon stream channel (less than 5 additional acres), along with three windmill wells.

To assess the potential of Peralta Canyon to support riparian habitat, the BLM will conduct hydrologic studies and analysis, including appropriate stream flow monitoring of the channel (see Map 8). A riparian monitoring and development plan for these actions has been developed (USDI, BLM 2005b) *[RIP-2]*.

The BLM will establish a program to monitor the magnitudes and durations of the flows through the 2.05 miles of Peralta Canyon on Federal land in the Monument using the following means: (1) three alluvial water table wells (one each in the upper, middle, and lower por-

tions), and (2) two stream gauge stations (in the upper and lower portions) *[RIP-3]*. This program will be part of a larger study to determine whether the development of a riparian area along the Peralta Canyon stream channel is possible.

Alongside the channel, the BLM will develop a 3-acre enclosure on Federal land to monitor vegetation supported by available water during the runoff season. A vegetation inventory will be conducted along the stream channel within the enclosure and a comparable distance outside the enclosure *[RIP-4]*.

Additional measures will include the following: (1) prescribed fires for parts of the Peralta Canyon stream channel to reduce the cover of shrub species *[RIP-5]*; (2) prescribed fires may be followed by herbicide treatment of re-sprouting shrubs *[RIP-6]*; (3) areas currently lacking in grass and forb species will be seeded *[RIP-7]*; and, (4) if riparian conditions develop, cottonwood, willow, and other riparian species will be planted *[RIP-8]*.

If riparian vegetation becomes established in the stream channel, and the private inholdings are acquired, the entire riparian habitat within Peralta Canyon inside the Monument will be managed as a riparian area. The BLM will then assess the area for properly functioning condition *[RIP-9]*. As studies are being conducted, study areas alongside the Peralta Canyon stream channel will be designated as off limits to such recreational uses as hiking and horseback riding to avoid damage to riparian habitat *[RIP-10]*. If inholdings are not acquired, the BLM will pursue Cooperative Management Agreements with willing landowners to protect any riparian areas that develop on private land *[RIP-11]*.

#### *Implementation Decisions*

A riparian monitoring program will be established on a few acres of Federal land to determine the potential for riparian habitat development *[RIP-3]*. If potential is shown, a more intense riparian restoration program will be pursued *[RIP-8]*. Acquisition of the private land along Peralta Canyon from willing sellers could



increase this potential. Riparian habitat will be expanded to the extent that potential is indicated (see Map 8) *[RIP-8]*.

### ***Support Services***

#### **- Lands and Realty**

Lands and Realty support is needed for acquisition of the remaining 1.6 miles of the Peralta Canyon stream bottom.

### **Monitoring**

To assess the potential of Peralta Canyon to support riparian habitat, the BLM will conduct hydrologic studies and analysis, including appropriate stream flow monitoring of the channel. A riparian development plan for these actions has been developed (USDI, BLM 2005b) *[RIP-2]*.

Under this plan, the BLM will establish a program to monitor the magnitudes and durations of the flows through the 2.05 miles of Peralta Canyon on Federal land in the Monument using the following means: (1) three alluvial water table wells (one each in the upper, middle, and lower portions), and (2) two stream gauge stations (in the upper and lower portions). This program will be part of a larger study to determine whether the development of a riparian area along the Peralta Canyon stream channel is possible.

Alongside the channel, the BLM will develop a 3-acre enclosure on Federal land to monitor vegetation supported by available water during the runoff season. A vegetation inventory will be conducted along the stream channel within the enclosure and a comparable distance outside of the enclosure. Obvious changes toward a riparian plant community will trigger the initiation of more intense restoration activities.



## **SOCIAL AND ECONOMIC CONDITIONS**

### **Goals and Objectives**

The goal of this program is compliance with the principles of Environmental Justice. Consideration is given to the health and well-being of minority and low income communities and avoidance of inequitable distribution of adverse impacts to these communities [SE-1].

### **Management Actions**

#### ***Allowable Uses and Actions***

The social and economic conditions attributable to management of the Planning Area include social values associated with environmental education [SE-2] as well as economic values associated with part-time employment for 4 to 5 persons and income to the Pueblo de Cochiti amounting to \$25,000 to \$50,000 per year [SE-3]. This figure is likely to increase over the life of this plan. In addition, some tourism dollars will be spent in the local and regional economy. However, the size of the local community

does not encourage long stays and the percentage of out-of-state visitors is low (less than 25 percent in 2002), so tourism income is expected to remain low. Acquired lands may add to Sandoval County's entitlement acres, increasing the Federal government's payment in lieu of taxes (PILT) to the County. (In 2004, PILT to Sandoval County amounted to \$1.34 per entitlement acre.)

#### ***Implementation Decisions***

Communities of concern have been consulted and informed. The Pueblo de Cochiti will continue to participate in management of the Monument and Planning Area [AIU-6].

#### ***Support Services***

No support needs have been identified and none are anticipated.

#### **Monitoring**

Social and economic factors may be monitored through visitor use data collected as part of the Monument Recreation Management Program.



## SOIL AND WATER RESOURCES

### Goals and Objectives

The management objectives for the Soil and Water Resources programs are as follows:

- Protect, maintain, or improve the quality of the soil, water, and air resources and watershed values associated with the public lands, including natural site productivity, air quality, and surface and ground water quality, quantity, and timing *[SW-1a]*.
- Prevent deterioration of soil, air quality, and watershed conditions where technically and economically feasible, and rehabilitate areas in which accelerated erosion and runoff have resulted in unacceptable resource conditions *[SW-1b]*.
- Prevent or minimize threats to public health and safety, damage to natural site characteristics, or economic losses due to floods, sedimentation, decreased water and air quality, or accelerated runoff and erosion *[SW-1c]*.
- Prevent impairment of soil productivity due to accelerated soil loss or physical or chemical degradation of the soil resource *[SW-1d]*.
- Ensure that BLM management actions and objectives are consistent with soil resource capabilities *[SW-1e]*.
- Maintain or improve surface and ground water quality consistent with existing and anticipated uses and applicable state and Federal water quality standards *[SW-1f]*.
- Minimize the harmful consequences of overland flow and surface runoff on or arising from BLM-administered lands *[SW-1g]*.
- Provide for the physical and legal availability of water to facilitate authorized uses of the public lands *[SW-1h]*.

### Management Actions

Presidential Proclamation 7394 did not reserve water as a matter of Federal law. However, any water use or rights reserved or appropriated by the United States on or before the date of the Proclamation are not reduced or relinquished. The Secretary of the Interior will work with ap-

propriate State authorities to ensure that any water resources needed for Monument purposes are available.

### *Allowable Uses and Actions*

Management of the Soils and Water Resources programs involves direct activities as well as support for other program activities. The BLM will maintain water source inventories, participate in State water rights adjudications (none of which affect the Monument at this time), and evaluate watershed conditions in terms of erosion/sedimentation, water quality, and supply *[SW-2]*. As needed, the BLM will also plan, implement, monitor, and maintain watershed rehabilitation projects *[SW-3]*.

The Soils and Water Resources programs will support facilities and land management activities in the Planning Area by providing input for properly locating facilities, hydrologic design, assessing impacts, and recommending mitigation measures. The soil types found in the Monument and Southwest Acquisition are shown on Map 9. Soils and water resources information for non-Federal lands in the Planning Area will be developed as needed when Cooperative Management Agreements or acquisitions are made.

The "Access and Transportation" section of this RMP identifies which roads and trails will remain open for use, and which will be closed. For closed roads and trails to be rehabilitated, the BLM will implement appropriate protection measures (Best Management Practices) to minimize watershed impacts and/or restore natural conditions *[SW-4]*. The BLM will assess physical water availability and quality for visitor use, acquire water rights (if needed), and ensure continued compliance with the Safe Drinking Water Act *[SW-5]*. To assess the potential of Peralta Canyon to support riparian habitat, the BLM will conduct hydrologic studies and analysis, including appropriate stream flow monitoring of the channel *[RIP-2]*.

For water resource management, the term "Best Management Practices" or "BMPs" is defined by 40 CFR 130, "Water Quality Planning and Management," as "methods, measures, or prac-



tices selected by an agency to meet its nonpoint source control needs. BMPs include but are not limited to structural and nonstructural controls and operation and maintenance procedures. BMPs can be applied before, during, and after pollution-producing activities to reduce or eliminate the introduction of pollutants into receiving waters.”

### *Implementation Decisions*

The New Mexico Standards for Public Land Health and Guidelines for Livestock Grazing Management (USDI, BLM 2000a), approved by the Secretary of the Interior’s Decision of January 12, 2001 and carried forward into this RMP, will be complied with *[PLH-2]*. The standards include: (1) the upland sites standard; (2) the biotic communities standard (including native, threatened, endangered, and special status species); and (3) the riparian sites standard. These

standards are described in the “Public Land Health” section.

### *Support Services*

No support needs have been identified and none are anticipated.

### **Monitoring**

Monitoring efforts conducted or supported by the Soils and Water Resources programs will be under the adaptive management approach. The levels of monitoring and the techniques employed will be adapted as necessary as monitoring efforts proceed and as understanding of resource conditions improves, ensuring efficient use of limited monitoring resources.

If a local source of water is developed, it will be monitored to ensure compliance with the Safe Drinking Water Act.



*Snow emphasizes the layering of the tent walls.*



## **SPECIAL GEOLOGIC FEATURES**

### **Goals and Objectives**

The Monument and Planning Area contain a unique combination of geologic features, including exposed faults, "tents," and remarkably informative volcanic tuff outcrops; these are referred to as "special geologic features" in this Plan (see Map 10). By definition, these features have extremely well-represented geology, with high aesthetic and educational value. There are special geologic features on 167 acres of Federal land, 439 acres of private land, and 23 acres of State land in the Monument, as well as on 1,655 acres of State land in the North Edgeholding (Cañada de Cochiti) proposed for acquisition.

The BLM's management goal is to protect these important, environmentally sensitive geologic resources in their natural condition (subject to ecological processes), while allowing recreation, and scientific research and collection [SGF-1]. Because the 4,565 acres of Federally owned minerals within the Monument have been withdrawn from mineral entry, only the 837 acres of non-Federal minerals (316 acres private and 521 acres State) could be developed. If the non-Federal mineral resources are developed, the BLM's management goal will be to protect the special geologic features to the extent possible [SGF-2].

### **Management Actions**

#### ***Allowable Uses and Actions***

The Proclamation states that the Monument "is a remarkable outdoor laboratory, offering an opportunity to observe, study, and experience the geologic processes that shape natural landscapes, as well as other cultural and biological objects of interest." "For purposes of protecting the objects identified above, the Secretary shall prohibit all motorized and mechanized vehicle use off road, except for emergency or authorized administrative purposes" [AT-12].

The BLM will develop appropriate interpretive materials (e.g., signs, brochures) to explain the special geologic features such as tents, faults, and flows [SGF-3].

Scientific collection and research will be allowed only by accredited universities or other organizations under permit. Permits will be issued only in the areas determined to be the least susceptible to impacts and will not be issued in areas composed of the "tents." When proposals are submitted for scientific research and collection in the Planning Area, the BLM will (1) evaluate the proposals and permit applications, (2) develop appropriate stipulations for geological resource protection, and (3) conduct compliance inspections. If the inspections indicate that any study is unduly and unnecessarily degrading the natural landscape within the Planning Area, the BLM will severely limit or eliminate study in affected areas [SGF-4].

#### ***Implementation Decisions***

Special geologic features will be protected on 167 acres of Federally owned Monument lands for visitor viewing and observation. Identified acquisitions, if completed, could increase this area to as much as 2,284 acres. These features represent the remarkable outdoor laboratory identified in the Proclamation [SGF-5].

#### ***Support Services***

##### **- Engineering**

Engineering support will encourage development and maintenance of recreational and visitor use facilities so as to avoid degradation of the special geologic resources.

#### **Monitoring**

Photo monitoring points and a schedule will be established to observe change in the geologic features in the special geologic observation areas.



## **SPECIAL STATUS PLANTS**

### **Goals and Objectives**

The goal of the Special Status Plant Program is compliance with the Endangered Species Act. The BLM manages the public land to maintain, restore, improve, or enhance habitats which maintain or lead to recovery of Federally listed species populations and to preclude the need for listing proposed, candidate, and other special status species *[SS-1a]*. Special status species are species that are (1) officially listed, proposed for listing, or candidates for listing as threatened or endangered by the Secretary of the Interior under the provisions of the Endangered Species Act, (2) listed or proposed for listing by a state in a category implying potential endangerment or extinction, or (3) designated by the BLM as "sensitive." Resource Management Plan decisions should do all that is reasonable to protect special status species and their habitat from degradation to the end that the species will not have to be listed as threatened or endangered.

The objective of the Special Status Plant Program is to continue to monitor and inventory special status species and their habitats to ensure that appropriate management, protections, and mitigations are developed and applied *[SS-1b]*.

### **Management Actions**

#### *Allowable Uses and Actions*

No special status plant species have been identified within the Monument or Southwest Acquisition. Any plants located will be managed on a case-by-case basis *[SS-2]*.

#### *Implementation Decisions*

Any special status plant species located within the Planning Area will be managed on a case-by-case basis. Consultation with the U.S. Fish and Wildlife Service for listed species will be carried out as required by the Endangered Species Act *[SS-2]*.

#### *Support Services*

- Engineering

Engineering support services may be needed to locate visitor use facilities in a manner so as to avoid degradation of special status plant species habitat.

#### **Monitoring**

The Special Status Plant Program will monitor and inventory special status species and their habitats to ensure that appropriate management, protections, and mitigations are developed and applied.



## THREATENED, ENDANGERED, AND SENSITIVE WILDLIFE SPECIES

### Goals and Objectives

The goal of the Threatened, Endangered, and Sensitive Wildlife Species Program is compliance with the Endangered Species Act. The BLM manages the public land to maintain, restore, improve, or enhance habitats which maintain or lead to recovery of Federally listed species populations and to preclude the need for listing proposed, candidate, and other special status species [TE-1a]. Special status species are species that are (1) officially listed, proposed for listing, or candidates for listing as threatened or endangered by the Secretary of the Interior under the provisions of the Endangered Species Act, (2) listed or proposed for listing by a state in a category implying potential endangerment or extinction, or (3) designated by the BLM as "sensitive." Resource Management Plan decisions should do all that is reasonable to protect special status species and their habitat from degradation to the end that the species will not have to be listed as threatened or endangered.

The objective of the Threatened, Endangered, and Sensitive Wildlife Species Program is to continue to monitor and inventory special status species and their habitats to ensure that appropriate management, protections, and mitigations are developed and applied [TE-1b].

### Management Actions

The Endangered Species Act (ESA) requires special protection and management of Federally listed threatened and endangered (T&E), proposed, and candidate plant and animal species (16 U.S.C. 1531-1544, as amended). The BLM implements the ESA through its National Special Status Species Policy contained in BLM Manual 6840 [TE-2]. This policy directs the BLM to plan and implement programs to conserve T&E species, and to ensure that actions authorized, funded, or carried out do not jeopardize listed species or contribute to the need to list a species [TE-3]. This policy further charges BLM State Directors with the responsibility of

giving state-designated species the same level of protection provided for Federal candidate species [TE-4].

Specifically, the BLM is to carry out the following:

- Determine the distribution, abundance, and reasons for the current status, and habitat needs for candidate (and sensitive) species occurring on land administered by the BLM, and evaluate the significance of BLM-administered lands or actions in maintaining those species [TE-5a].
- For those species where BLM-administered lands or actions have a significant effect on their status, manage the habitat to conserve the species by the following means [TE-5b]:
- Include candidate (and sensitive) species as priority species in land use plans [TE-5c].
- Develop and implement area-wide and/or site-specific management plans for candidate (and sensitive) species that include specific habitat and population management objectives designed for recovery, as well as the management strategies necessary to meet those objectives [TE-5d].
- Ensure that BLM activities that affect the habitat of candidate (and sensitive) species are carried out in a manner consistent with the objectives for those species [TE-5e].
- Monitor populations and habitats of candidate (and sensitive) species to determine whether management objectives are being met [TE-5f].

### Allowable Uses and Actions

The BLM has made a "No Affect" determination for the Monument for all the listed, proposed and candidate species, and critical habitat identified by the U.S. Fish and Wildlife Service as potentially occurring in Sandoval County [TE-6]. No current or potential habitat exists in the Monument to support these species.

The BLM has identified 13 sensitive species as potentially occurring or having suitable habitat within the Monument and Southwest Acquisition. The BLM will manage these species in



accordance with the BLM 6840 Manual if any are identified [TE-7].

The BLM will evaluate the Monument for new special status species as the special status species list for Sandoval County is updated [TE-8].

### ***Implementation Decisions***

None.

### ***Support Services***

#### **- Engineering**

Engineering support services may be needed to locate visitor use facilities in a manner so as to avoid degradation of special status species habitat.

### **Monitoring**

The Monument, Southwest Acquisition, and any acquired lands will be evaluated for potential habitats of known listed and other special status

species. These evaluations will be updated as special status lists are updated and/or as the BLM acquires land in the Planning Area.

Potential suitable habitats for listed or other special status species found on the Monument will be inventoried for their presence. Endangered Species Act consultation with the U.S. Fish and Wildlife Service will be initiated for listed species at that time and will determine further monitoring needs. Consultation with the New Mexico Department of Game and Fish could begin as well.

Known populations of other special status species will be monitored according to current protocols or current best information.

Changes in population trends will be evaluated. Negative changes will result in change in management of the Monument, and for listed species, re-initiation of Endangered Species Act Section 7 consultation with the U.S. Fish and Wildlife Service.



## VEGETATION AND WOODLANDS MANAGEMENT

### Goals and Objectives

BLM Handbook H-1601 states that the BLM's goals for vegetation are to: (1) Identify desired future conditions for vegetative resources, including the desired mix of vegetative types, structural stages, and landscape and riparian functions, and provide for native plant, fish, and wildlife habitats. (2) Identify the actions and area-wide use restrictions needed to achieve desired vegetative conditions *[VW-1]*.

The objectives of vegetation treatments are as follows:

- Reduce the risk of hazardous vegetative fuels to human life and property *[VW-2a]*.
- Reduce the risk or cost of fire suppression in areas of hazardous fuels buildup *[VW-2b]*.
- Achieve other resource objectives (e.g., improve native plant and wildlife habitat) *[VW-2c]*.
- Treat lands that are in Fire Regime Condition (FRC) Classes II and III *[VW-2d]*.
- Maintain lands that are in FRC Class I *[VW-2e]*.

### Management Actions

#### *Allowable Uses and Actions*

Where needed, vegetation and woodland treatments will consist of prescribed fire, mechanical methods, physical removal of excess vegetation, and chemical methods *[VW-3]*. The BLM will follow Best Management Practices (BMPs) for vegetation treatments (see Appendix C). Some treatments may need to be combined with others for best results, and some areas may need to be treated repeatedly to achieve the desired results *[VW-4]*.

Three previous planning documents addressed fire and fuels/vegetation management in Kasha-Katuwe Tent Rocks National Monument: *Categorical Exclusion NM-010-2003-066: Tent*

*Rocks Wildland-Urban Interface Hazardous Fuels Reduction Project* (USDI, BLM 2003); *Fire and Fuels Management Resource Management Plan Amendment and Environmental Assessment for BLM Lands in New Mexico and Texas* (USDI, BLM 2004b); and *Albuquerque Field Office Fire Management Plan* (USDI, BLM 2004a). The decisions from these planning and NEPA documents have been incorporated into this stand-alone RMP. The Planning Area is identified as a separate Fire Management Unit (FMU). It will be managed as FMU B/4, defined as an area "where unplanned wildland fire is not desired because of current conditions" *[FM-3]*. Through proposed vegetation treatments, the BLM will focus on moving the landscape from FRC Classes II and III toward the desired future condition of FRC Class I (see Map 5 and "Fire Management," above) *[FM-4]*.

#### *Implementation Decisions*

Woodlands and vegetative treatments will be applied on acreages and areas identified on Map 5 to move the FRC class from Classes II and III toward Class I *[FM-4]*. The BLM will use BMPs for vegetation treatment (see Appendix C) *[VW-4]*. Treatments will be prioritized based on percent slope, FRC class, access, and ownership of the areas to be treated. Only areas having slopes less than 15 percent (2,236 acres in the Planning Area) will be treated.

The NM Standards for Public Land Health (USDI, BLM 2000a) will be complied with in establishing woodlands and vegetative treatments as management moves toward desired future conditions *[VW-5]*.

#### *Support Services*

No support needs have been identified and none are anticipated.

#### **Monitoring**

Areas treated will be monitored for effectiveness of treatment and to determine needs for additional treatments to achieve the desired FRC Class I condition.



## VISUAL RESOURCES

### Goals and Objectives

The BLM's overall goal for visual resources is to manage Federal lands in a manner that protects scenic (visual) values *[VR-1a]*. The objectives for the two Visual Resource Management (VRM) classes assigned to Federal lands in the Planning Area are as follows. Additional information on visual resource management is contained in Appendix D.

- Class II - Retain the existing character of the landscape, and prevent changes resulting from use authorizations and management actions that would attract attention. Changes in the landscape should repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape *[VR-1b]*.
- Class III - Activities and structures may attract attention but not dominate the view of the casual observer. Changes should borrow from the basic elements found in the natural features of the surrounding characteristic landscape *[VR-1c]*.

### Management Actions

Both the Federal Land Policy and Management Act and the National Environmental Policy Act require that Federal (public) lands be managed to protect the quality of their scenic values. Presidential Proclamation 7394 created Kasha-Katuwe Tent Rocks National Monument under the Antiquities Act of 1906 to protect the complex landscape and spectacular geologic scenery. BLM Manual 8400 is the BLM's guide for managing visual resources on Federal lands; visual resource management is a management responsibility shared by all resource programs. BLM Handbooks H-8410-1 (Visual Resource Inventory) and H-8431-1 (Visual Resource Contrast Rating) also provide guidance.

#### *Allowable Uses and Actions*

Objectives for VRM Classes II and III will be used to guide management actions on the public lands within the Planning Area *[VR-2]*. In areas

of intensive recreational use and along the existing primary vehicular route (BLM Road 1011) through the Monument, VRM Class III has been assigned to the 1,202 acres that encompass the immediate foreground (¼ mile) surrounding the developed facilities (see Map 11). On the Class III lands, only activities and structures that would attract attention but not dominate the view of the casual observer will be allowed. Any changes would borrow from the basic elements found in the natural features of the surrounding characteristic landscape *[VR-3]*. VRM Class II has been assigned to the 3,887 remaining acres of public lands, where the intent will be to retain the existing character of the landscape by keeping implementation actions from attracting attention *[VR-4]*.

The BLM will use a contrast rating process to determine the level of contrast acceptable under the assigned VRM class objectives. The contrasts will be measured by comparing the proposed project's basic design elements of form, line, color, and texture with those same elements found in the landform, water, vegetative, and structural features of the surrounding landscape as observed from key observation points. Design principles, techniques, and mitigation measures will be applied to minimize visual impacts *[VR-5]*.

The degrees of contrast are as follows:

- None - Element contrast is not visible or perceived.
- Weak - Element contrast can be seen but does not attract attention.
- Moderate - Element contrast begins to attract attention and dominate the characteristic landscape.
- Strong - Element contrast demands attention, will not be overlooked.

Acquired lands will be inventoried and placed in VRM Class II or III based on the extent of cultural modifications to the landscape, the need to implement future management actions or install facilities to accommodate visitor services, and the need for resource protection and rehabilitation *[VR-6]*.



### ***Implementation Decisions***

VRM Classes II and III will be used to guide management actions on the public lands within the Planning Area [VR-2].

### ***Support Services***

#### **- Engineering Support**

Engineering support services will help to locate facilities using effective design principles and

techniques to create the minimum level of visual contrast and to maintain VRM classes through effective use of mitigation measures.

### **Monitoring**

VRM design principles, techniques, and mitigation measures will be applied to projects within the Planning Area. Completed projects will be assessed to ensure that mitigation measures were successful.



*View of the Slot Canyon from BLM Road 1011.*



## **WILDERNESS AND WILDERNESS STUDY AREAS**

### **Goals and Objectives**

There are no wilderness study areas or designated wilderness within the Planning Area. Therefore goals and objectives were not established.

### **Management Actions**

#### *Allowable Uses and Actions*

There are no wilderness study areas or designated wilderness within the Planning Area. However, the Santa Fe National Forest's Dome

Wilderness and the National Park Service's Bandelier Wilderness adjoin the north edge of the Planning Area. None of these special areas is expected to affect the others' resource values.

#### *Implementation Decisions*

None.

#### *Support Services*

No support needs have been identified and none are anticipated.

#### **Monitoring**

None required.



*Native Thistle.*



## WILDLIFE HABITAT MANAGEMENT

### Goals and Objectives

The management goals for the Wildlife Habitat Management Program listed below were carried forward from the *Final Protection Plan for Tent Rocks, An Area of Critical Environmental Concern* (USDI, BLM 1987). The BLM will manage the Planning Area in the following ways to maintain and improve healthy habitats for wildlife [WL-1]:

- Promote awareness of wildlife values [WL-1a].
- Protect habitat for non-game birds and improve big-game winter habitat [WL-1b].
- Provide water development and rehabilitate grassland parks [WL-1c].

### Management Actions

Nothing in the Proclamation enlarges or diminishes the jurisdiction of the State of New Mexico over fish and wildlife management [WL-2].

Executive Order 13186 (2001) directs Federal agencies to “. . . promote the conservation of migratory bird populations . . .” and to “. . . support the conservation intent of the migratory bird conventions by integrating bird conservation principles, measures, and practices into agency activities and by avoiding or minimizing, to the extent practicable, adverse impacts on migratory bird resources when conducting agency actions.” It is therefore important that the BLM provide adequate habitat for these bird species [WL-3].

Among the goals and objectives of the Vegetation and Woodlands Management Program are “provide for native plant, fish, and wildlife habitats” and “achieve other resource objectives (e.g., improve native plant and wildlife habitat)” [VW-1, VW-2c]. The goals of the Wildlife Habitat Management Program will be achieved to a large extent through the actions of the Vegetation and Woodlands Management Program. Likewise, other goals of the Wildlife Habitat Management Program will be achieved through

the actions of other programs. For instance, when long-term livestock grazing is discontinued within the Monument, livestock water developments will be considered for conversion to wildlife waters [LG-3]. Wildlife and wildlife habitat will be among the features of the Monument interpreted for visitors with signs, kiosks, brochures, and websites [RU-9].

### Allowable Uses and Actions

The BLM will implement the following actions to maintain and enhance healthy habitats for wildlife populations within the boundaries of the Planning Area [WL-4]:

- Conduct a complete biotic survey of the area to determine the plant and animal species present, including vascular and non-vascular plants; soil macro- and micro-invertebrates for each soil type; arthropods, mollusks, and crustaceans; and miscellaneous other invertebrates as they become known [WL-4a].
- Conduct breeding bird surveys on a regular and repeating schedule. If populations decline, develop a mitigation plan in coordination with the U.S. Fish and Wildlife Service and the New Mexico Department of Game and Fish (NMDG&F) [WL-4b].
- Survey the stream bottom of Peralta Canyon every three years for evidence of riparian and wetland development. If such development occurs, pursue a more intensive riparian restoration program with specific actions to protect and promote the development (based on best science). This will also be applied to any springs or seeps discovered [WL-4c].
- Fence the south and west boundaries of the Planning Area and any acquired lands to prevent damage to big-game winter habitat from trespass livestock [WL-4d].
- Coordinate wildlife management activities with the NMDG&F (including but not limited to game species management and special status species management) [WL-4e].

### Implementation Decisions

None.



### ***Support Services***

#### **- Lands and Realty**

Development of a transportation plan will support reduction of road miles and reduce habitat segmentation.

#### **- Engineering**

Engineering support is needed for design, construction, and maintenance of visitor services, resource protection, and other appropriate recreation facilities to ensure long-term wildlife habitat improvement on public land.

#### **- Cadastral Survey**

Cadastral survey is needed to establish lines for boundary fences.

### **Monitoring**

The BLM will conduct a complete biotic survey of the area to determine the plant and animal species present.

Breeding bird surveys will be conducted on a regular and repeating schedule.

Overall habitat condition and trend monitoring will be conducted informally by the BLM. Apparent negative trends will be evaluated and may result in changes to Monument management.

Special circumstances may necessitate monitoring of a specific species. These will be determined through special evaluation, and specific monitoring methods and schedules will be developed at that time.



*Wilson's Warbler.*















## CHAPTER 3

### PUBLIC INVOLVEMENT IN IMPLEMENTATION

Land use plans and planning decisions are the basis for every on-the-ground action the BLM undertakes. They provide a framework to guide subsequent actions or plan implementation decisions. Implementation decisions are generally site-specific land management projects or actions designed to meet direction in the planning documents and decisions. Chapter 4, "Management Plan Implementation," identifies future implementation priorities, which of course, are dependent on staffing and funding levels. Each project will be subject to additional site-specific NEPA analysis and documentation, associated Native American consultation, and appropriate National Historic Preservation Act and Endangered Species Act compliance. As each project is considered, the public will be given the opportunity to be involved in project-level planning and review.

In addition to project planning and review as an opportunity for public participation, the Rio Puerco Field Office has an active volunteer program. There will be numerous opportunities for

volunteers as the Kasha-Katuwe Tent Rocks RMP is implemented.

To provide for more consistent, effective, and collaborative management of the Federal and Pueblo lands within and adjacent to the area known as Tent Rocks, the BLM and the Pueblo de Cochiti entered into an Inter-Governmental Cooperative Agreement in 1997. This agreement was followed in 2002 by a five-year Assistance Agreement between the Pueblo de Cochiti and the BLM. A second five-year Assistance Agreement was signed in January 2007. Under these agreements, the BLM seeks the Pueblo's participation and involvement in public land use planning by personal invitation to agency activities and meetings. The Pueblo provides appropriate staff for planning and implementing the initiatives developed under the agreement. As envisioned by the Proclamation, the Pueblo de Cochiti will continue to participate in management of the Monument and implementation of the RMP.



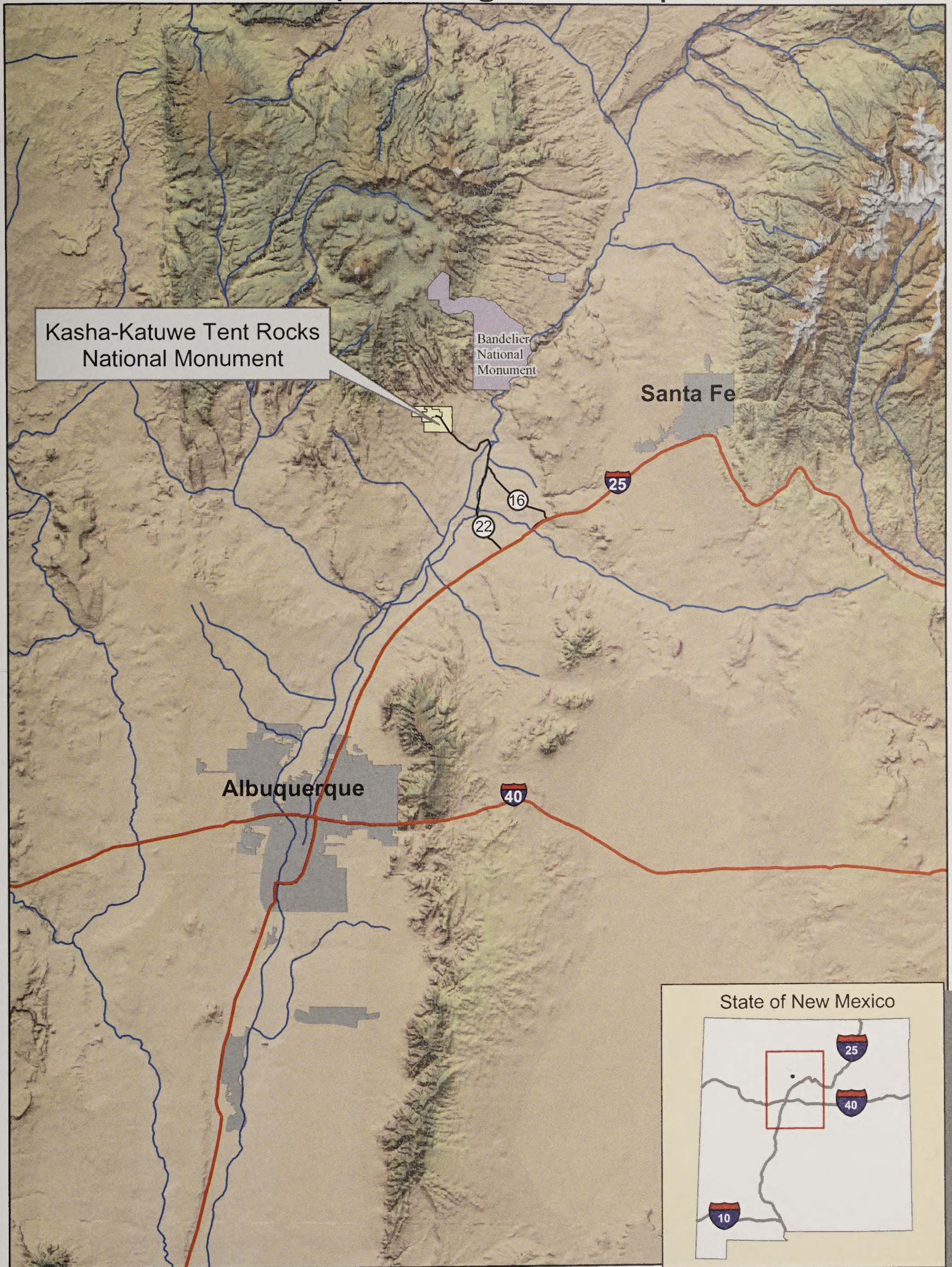








# Map 1 – Regional Map



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0 10 20 Miles

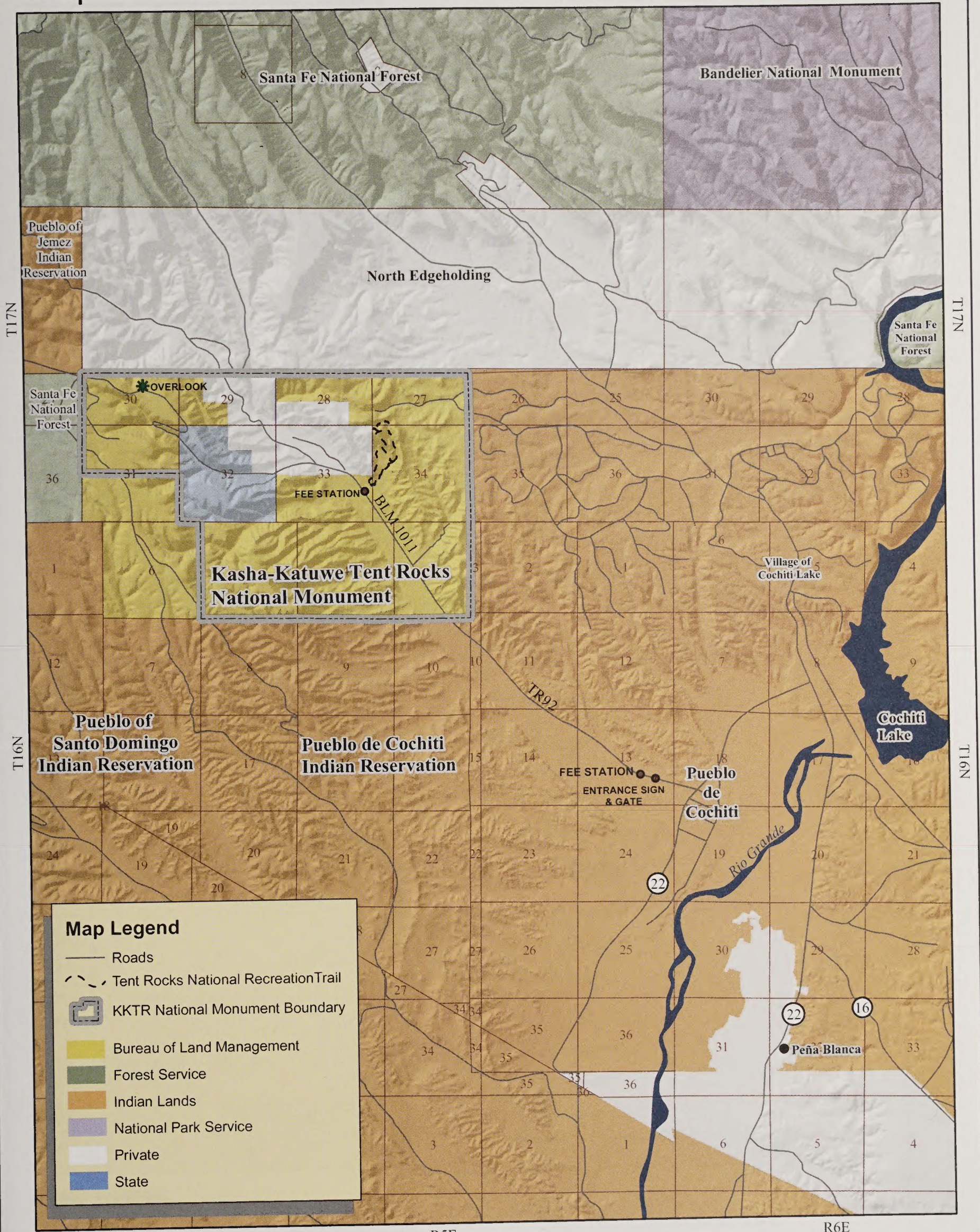
Projection: UTM Zone 13  
Datum: NAD 1983







# Map 2 – Kasha-Katuwe Tent Rocks National Monument



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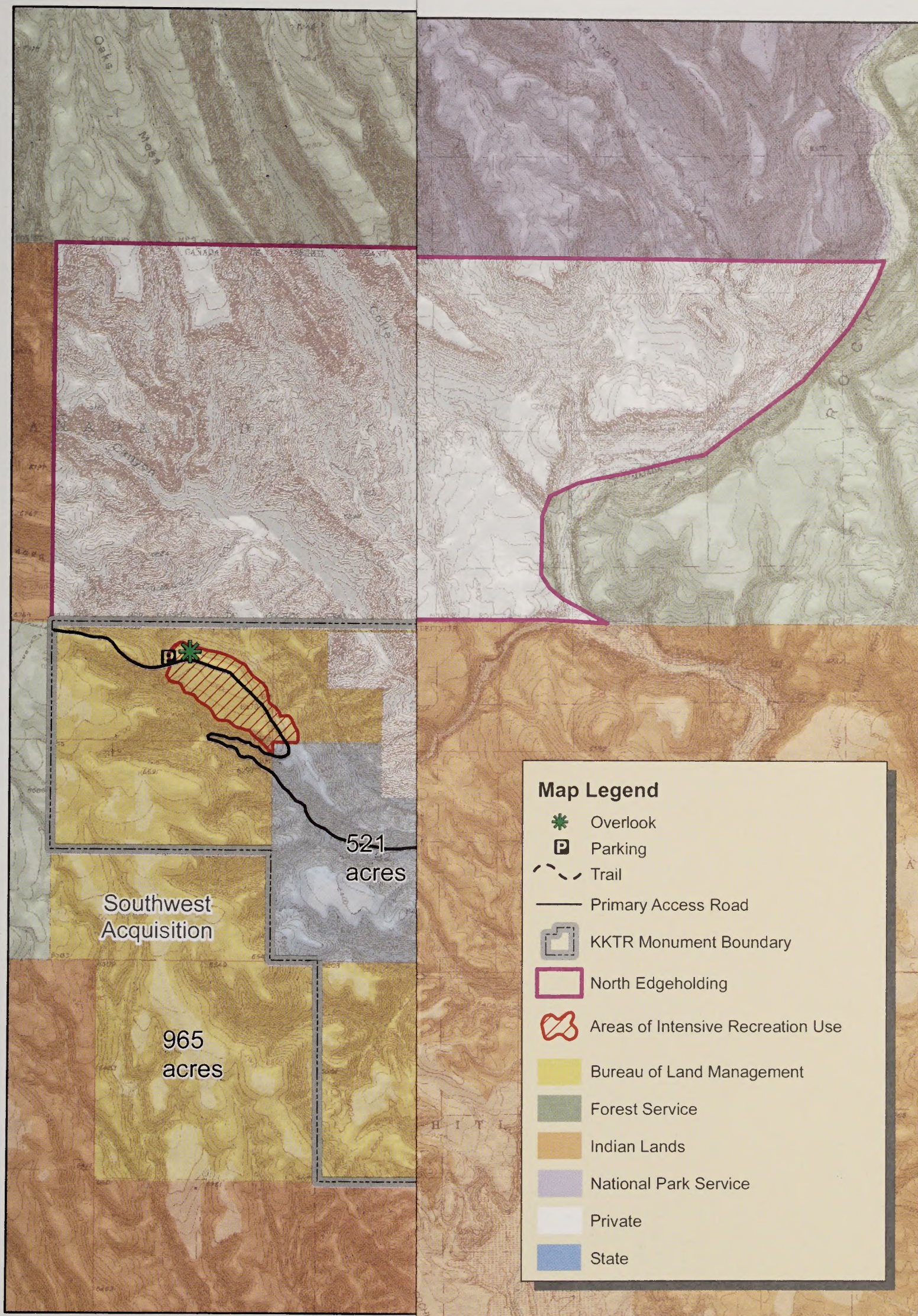
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Projection: UTM Zone 13  
Datum: NAD 1983









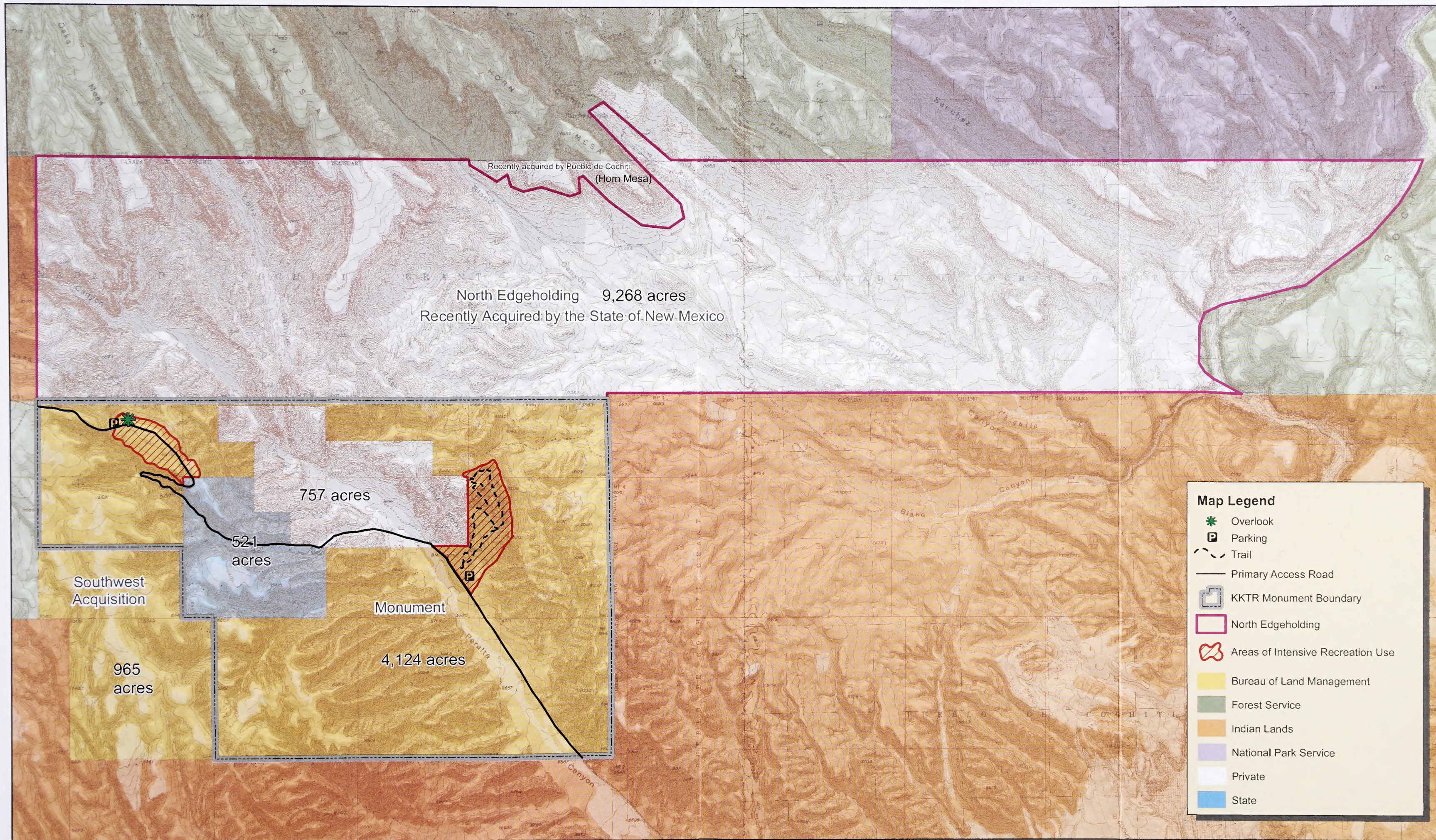
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**Map 3**  
**Planning Area Acreages**  
 (Includes Monument, Southwest Acquisition, North Edgeholding)









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0 0.5 1 Miles

Projection: UTM Zone 13  
Datum: NAD 1983

**Map 3**  
**Planning Area Acreages**  
(Includes Monument, Southwest Acquisition, North Edgeholding)







T17N

T16N

R04E

R06E



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### Map Legend

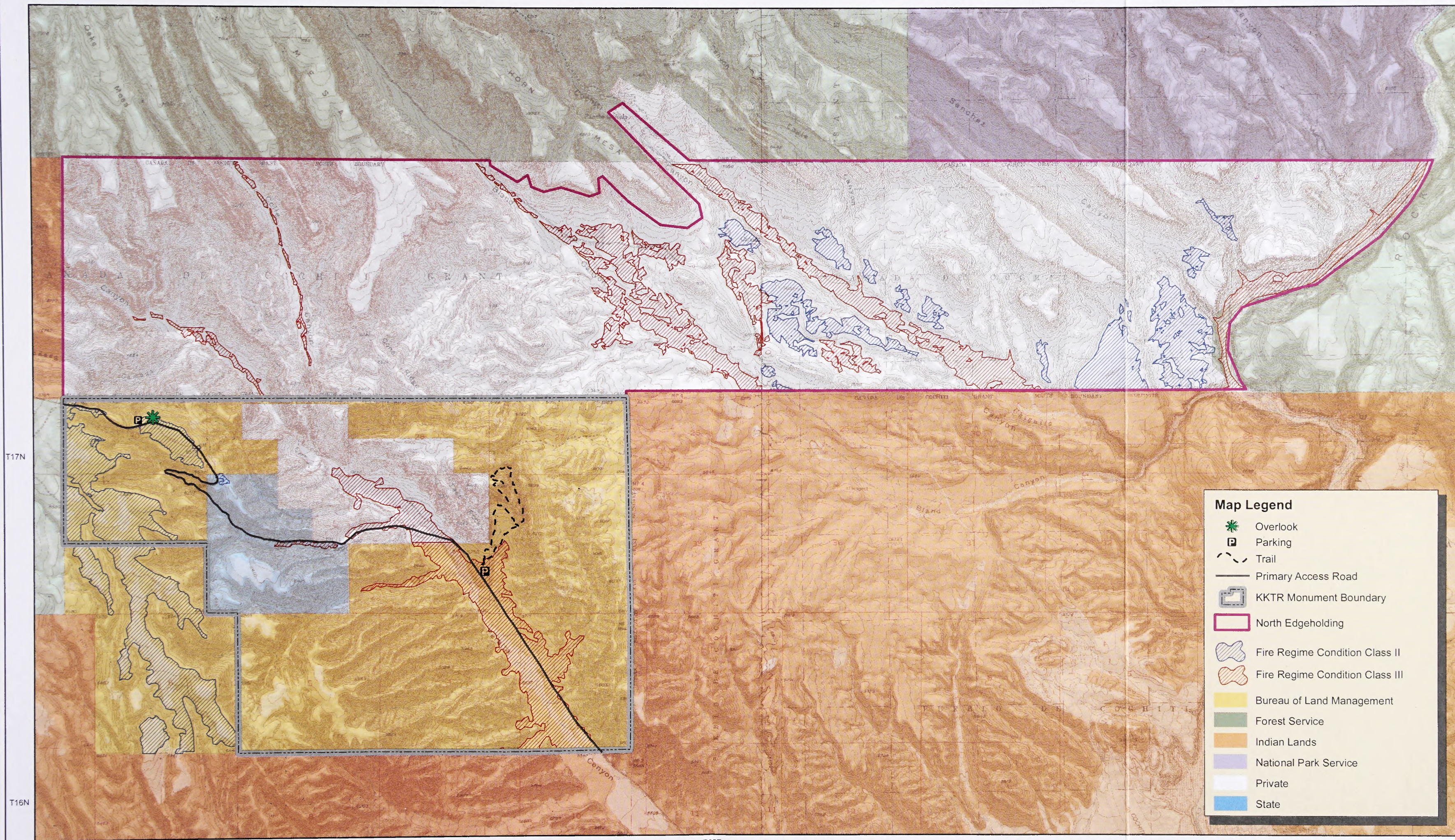
- Overlook
- Parking
- Trail
- Primary Access Road
- KKTR Monument Boundary
- North Edgeholding
- Fire Regime Condition Class II
- Fire Regime Condition Class III
- Bureau of Land Management
- Forest Service
- Indian Lands
- National Park Service
- Private
- State

## Map 5 Potential Hazardous Fuel (Vegetative) Treatment Areas







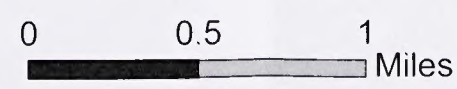


**Map Legend**

- Overlook
- Parking
- Trail
- Primary Access Road
- KKTR Monument Boundary
- North Edgeholding
- Fire Regime Condition Class II
- Fire Regime Condition Class III
- Bureau of Land Management
- Forest Service
- Indian Lands
- National Park Service
- Private
- State



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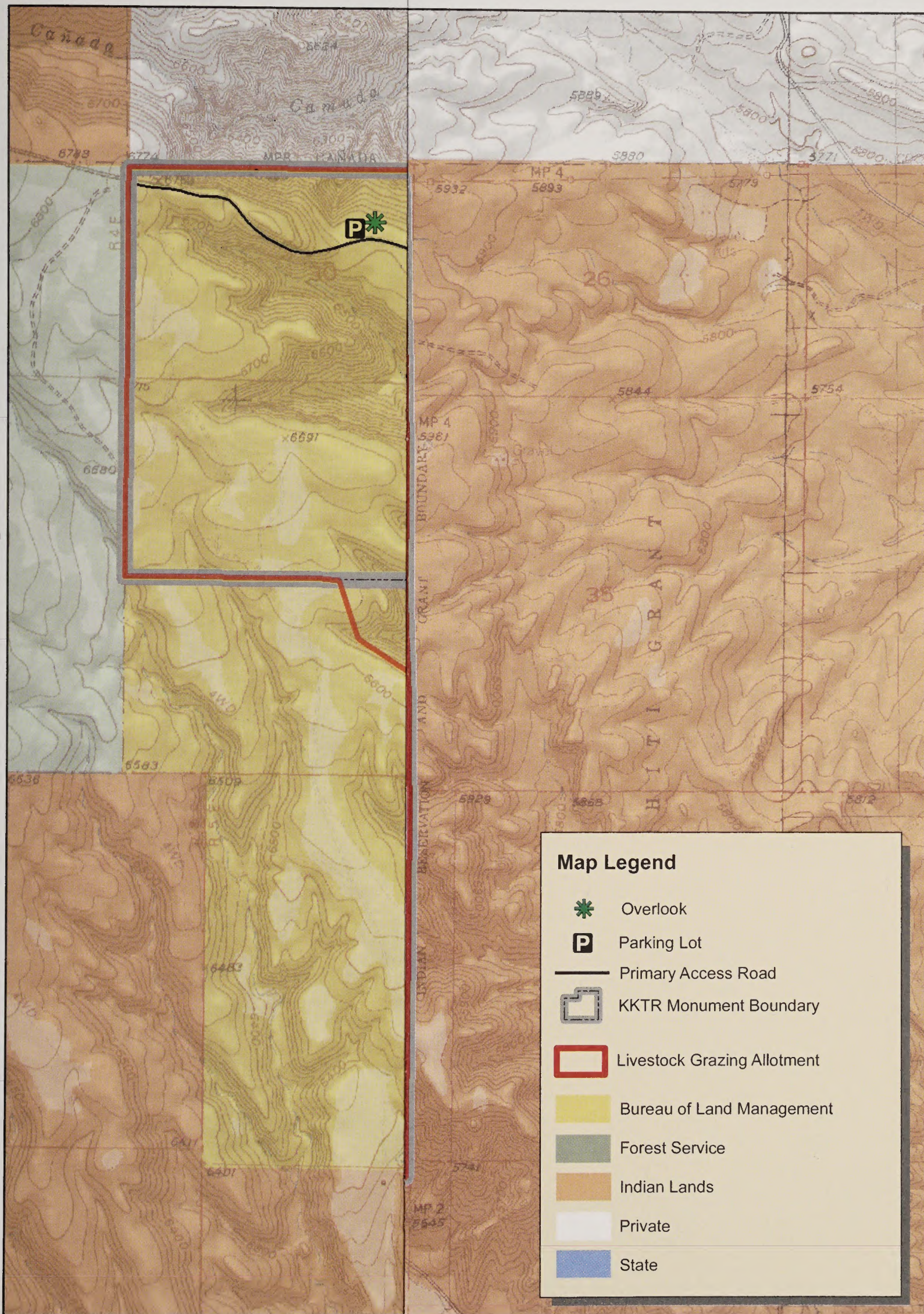
Projection: UTM Zone 13  
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**Map 5**  
**Potential Hazardous Fuel**  
**(Vegetative) Treatment Areas**









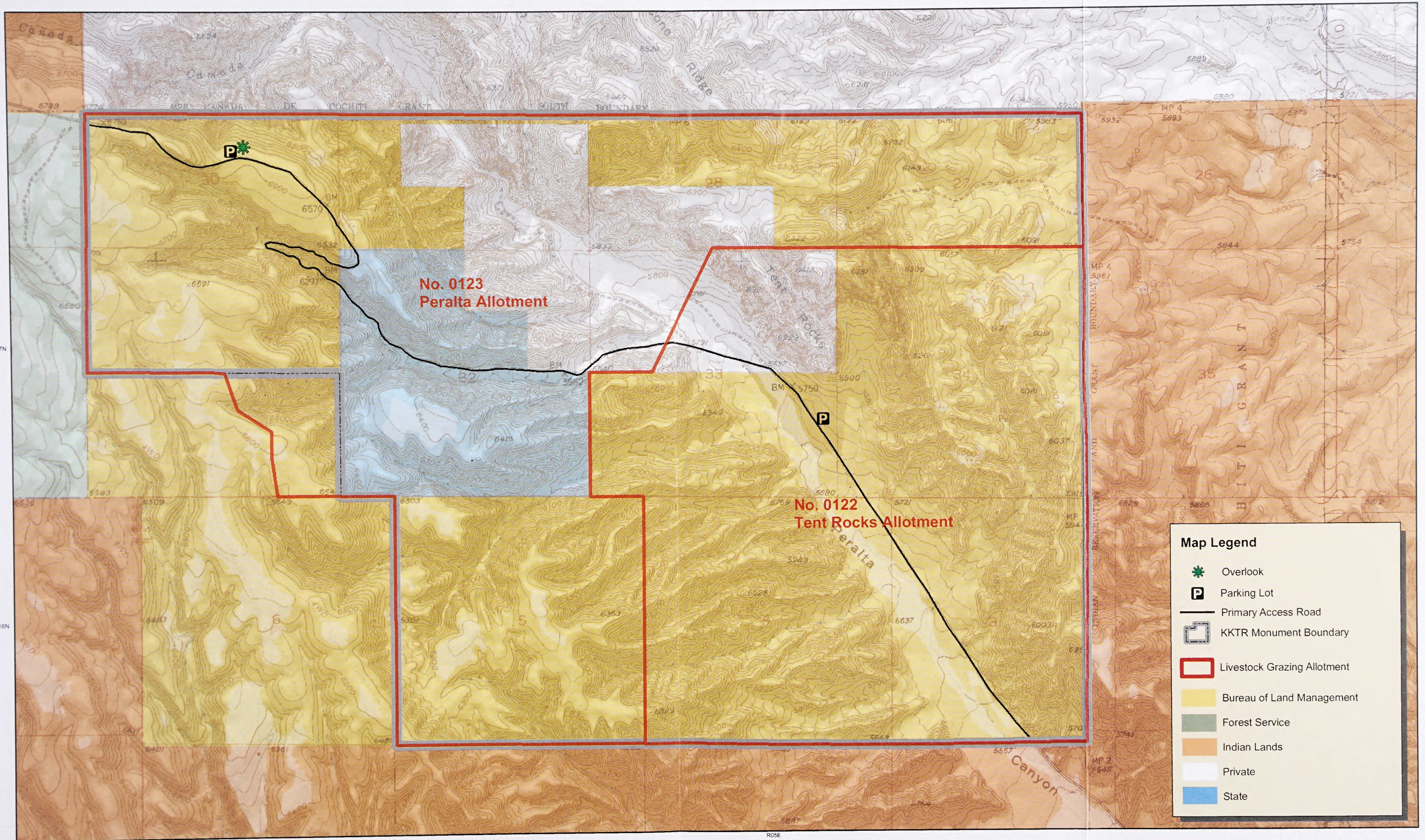
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## Map 6 Livestock Grazing Allotments in the Monument and Southwest Acquisition





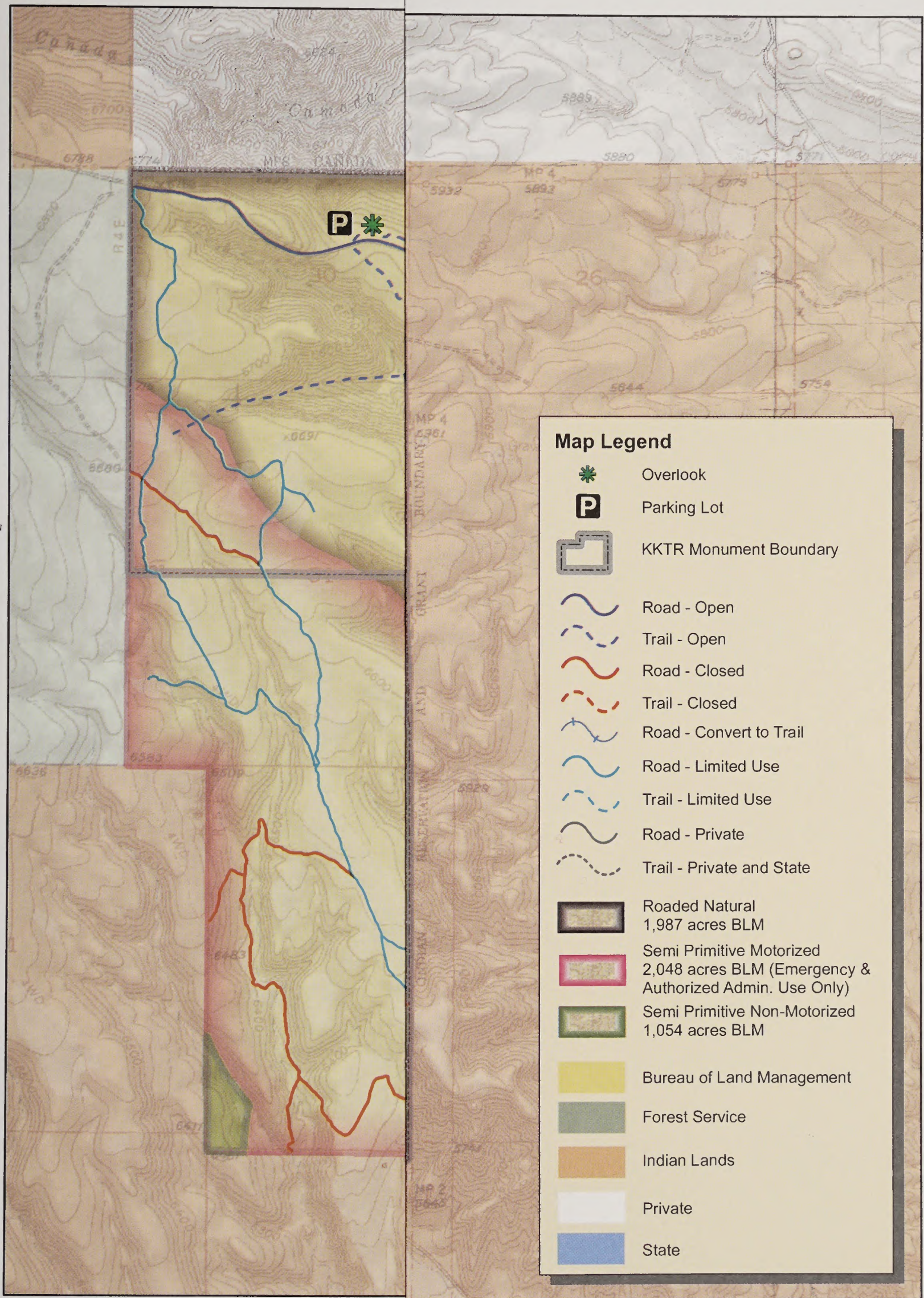












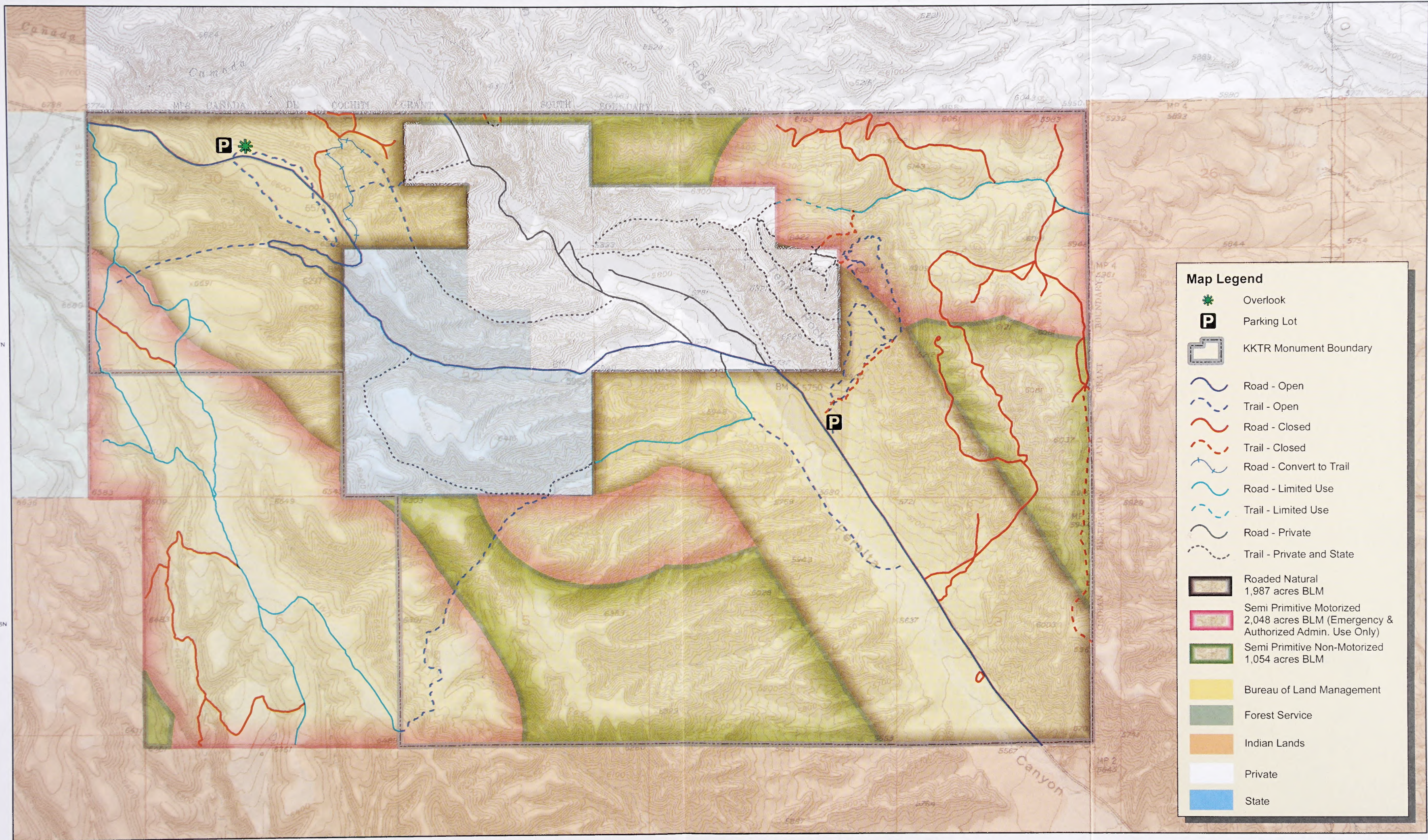
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## Map 7 ROS (Recreation Opportunity Spectrum) Classifications









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0 0.5 1 Miles

Projection: UTM Zone 13  
Datum: NAD 1983

## Map 7 ROS (Recreation Opportunity Spectrum) Classifications







T17N

T16N

R04E

R06E



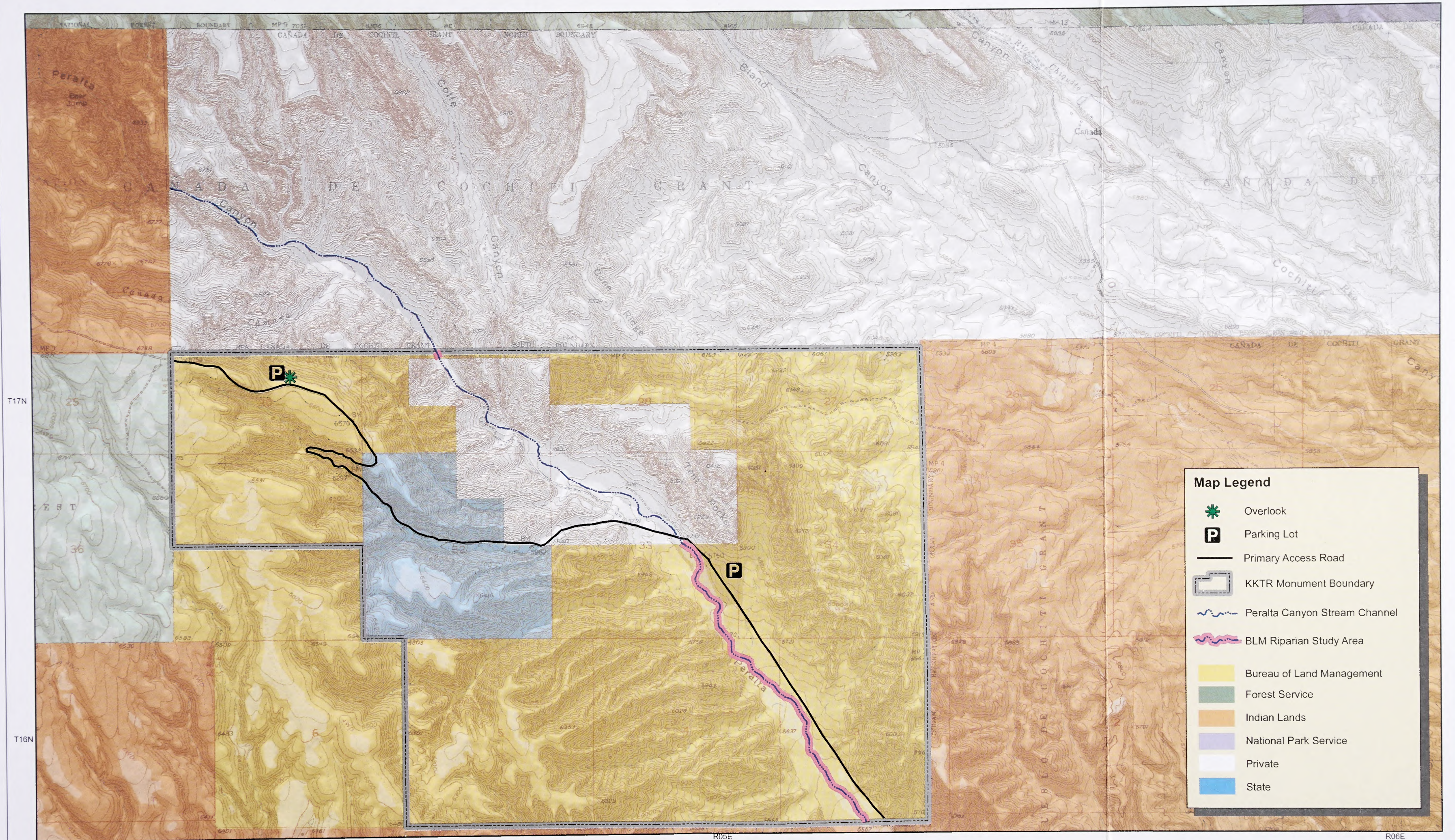
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## Map 8 Peralta Canyon Riparian Study Area







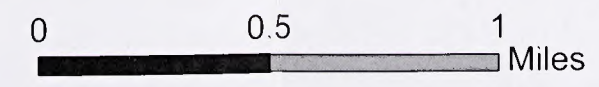


**Map Legend**

- Overlook
- Parking Lot
- Primary Access Road
- KKTR Monument Boundary
- Peralta Canyon Stream Channel
- BLM Riparian Study Area
- Bureau of Land Management
- Forest Service
- Indian Lands
- National Park Service
- Private
- State



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aggregate use with other data, or for purposes not  
intended by BLM. Spatial information may not meet  
National Map Accuracy Standards. This information  
may be updated without notification.



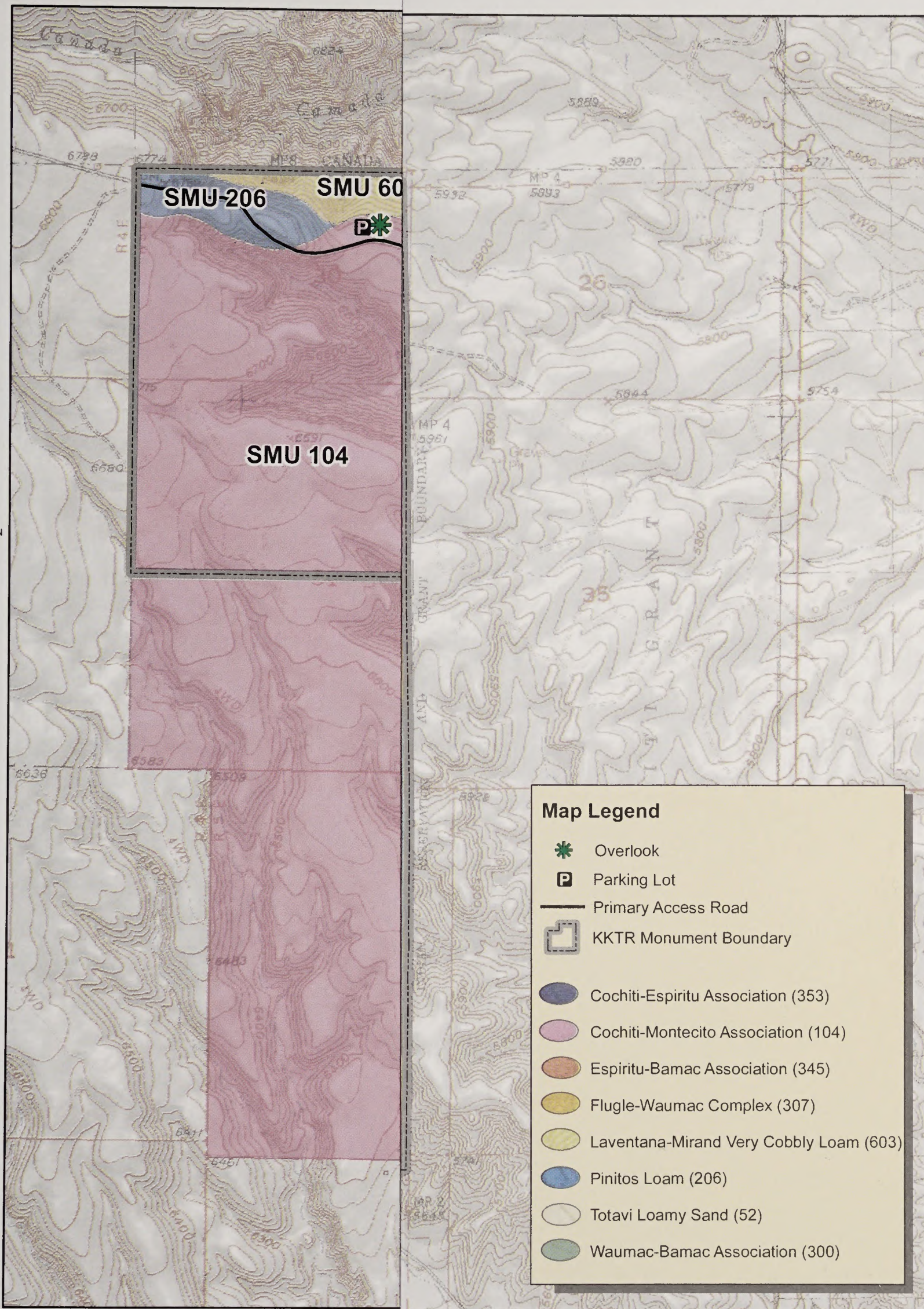
Projection: UTM Zone 13  
Datum: NAD 1983

**Map 8**  
**Peralta Canyon Riparian Study Area**









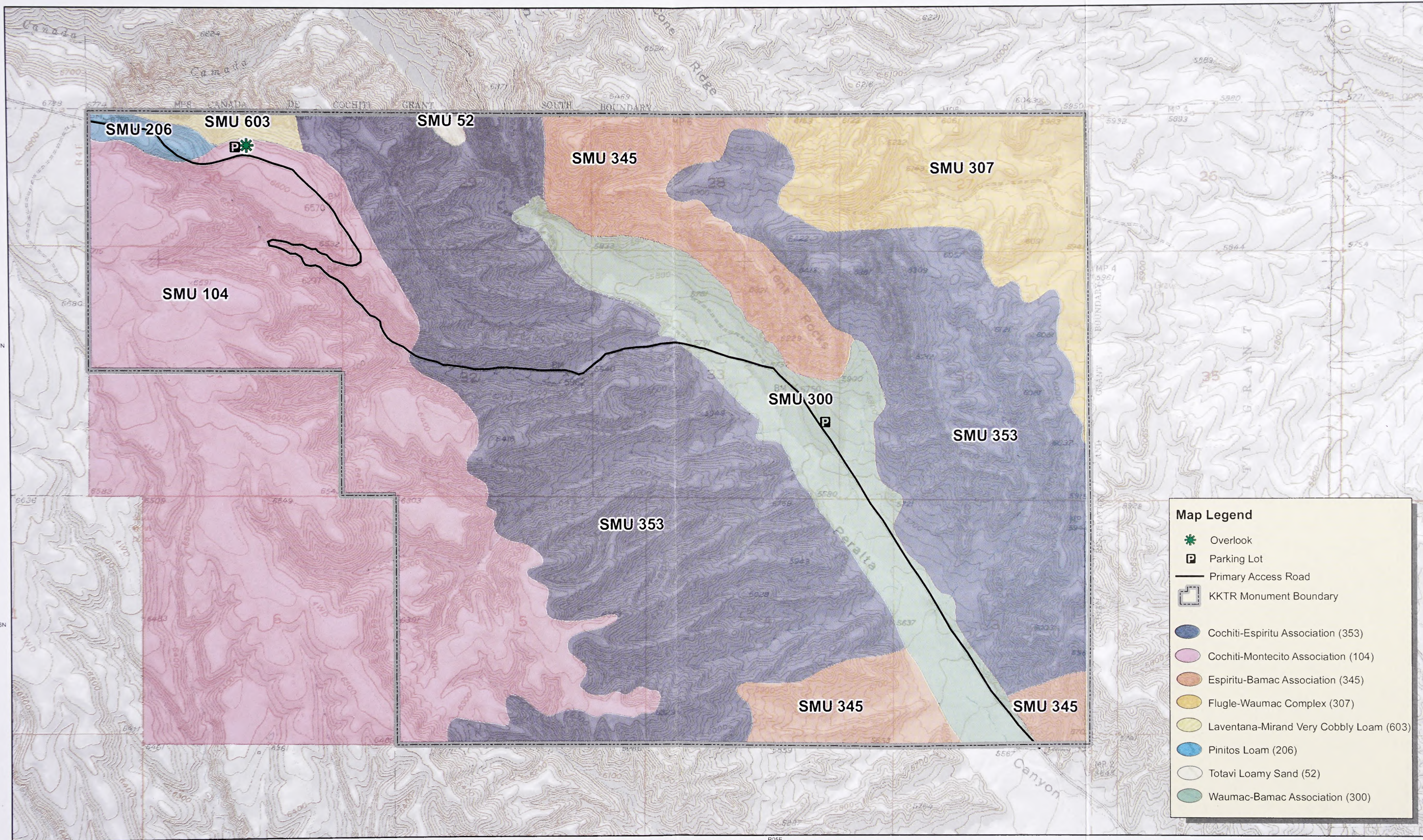
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**Map 9**  
**Soil Map Units (SMUs)**









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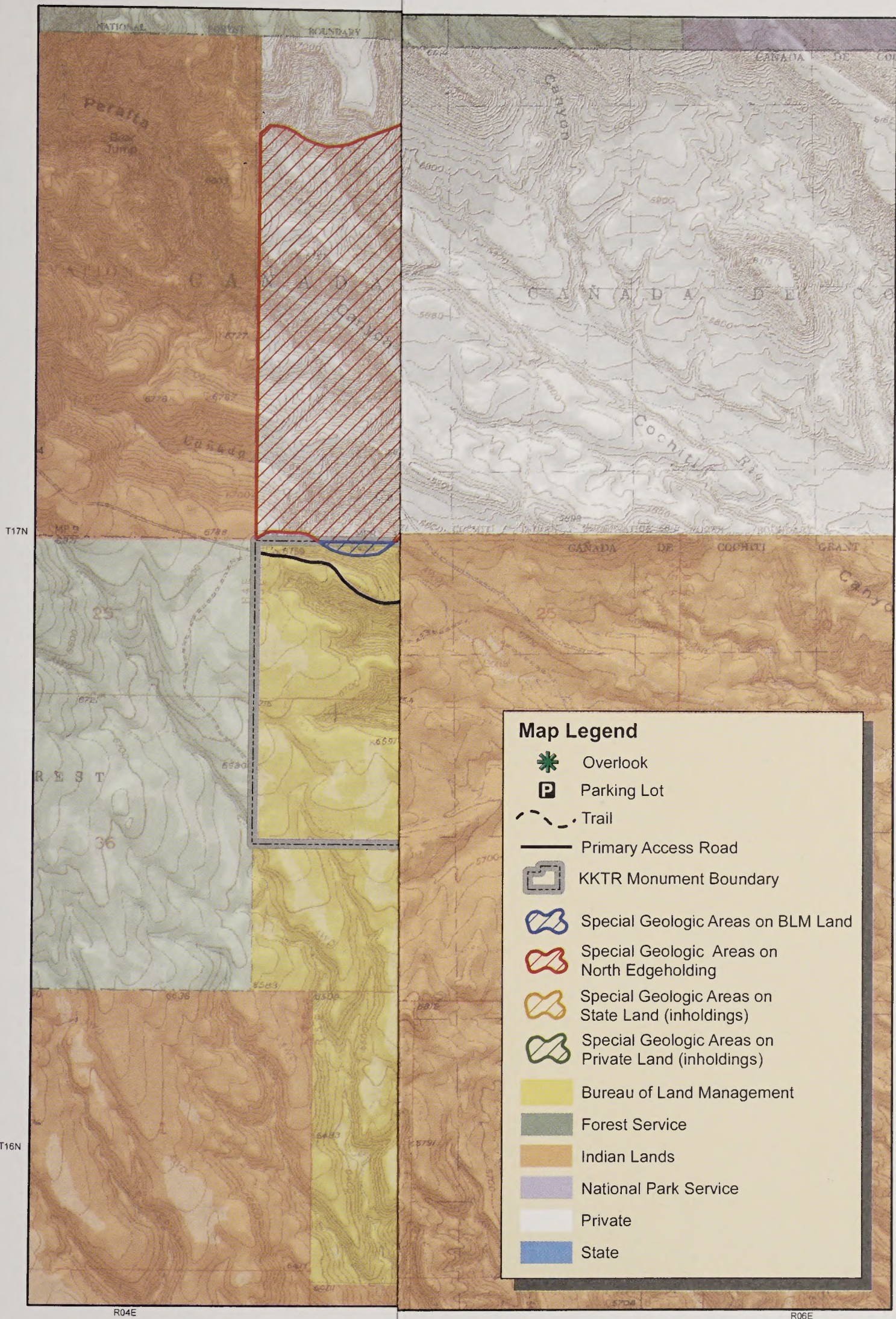
Projection: UTM Zone 13  
Datum: NAD 1983

**Map 9**  
**Soil Map Units (SMUs)**









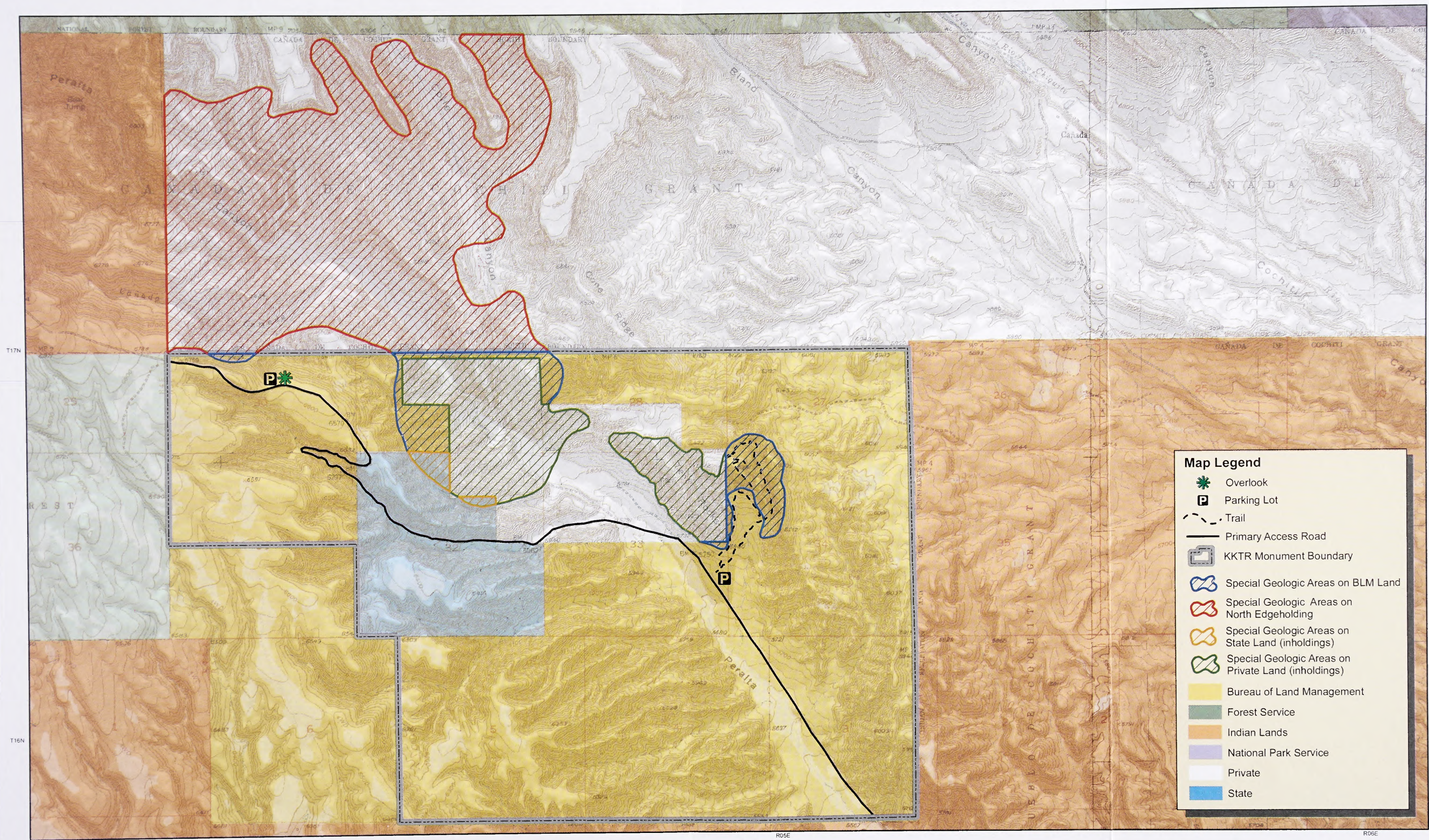
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**Map 10**  
**Areas with Special Geologic Features**







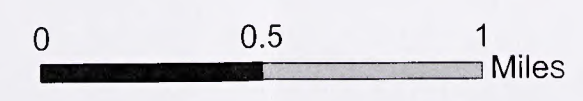


**Map Legend**

- Overlook
- Parking Lot
- Trail
- Primary Access Road
- KKTR Monument Boundary
- Special Geologic Areas on BLM Land
- Special Geologic Areas on North Edgeholding
- Special Geologic Areas on State Land (inholdings)
- Special Geologic Areas on Private Land (inholdings)
- Bureau of Land Management
- Forest Service
- Indian Lands
- National Park Service
- Private
- State



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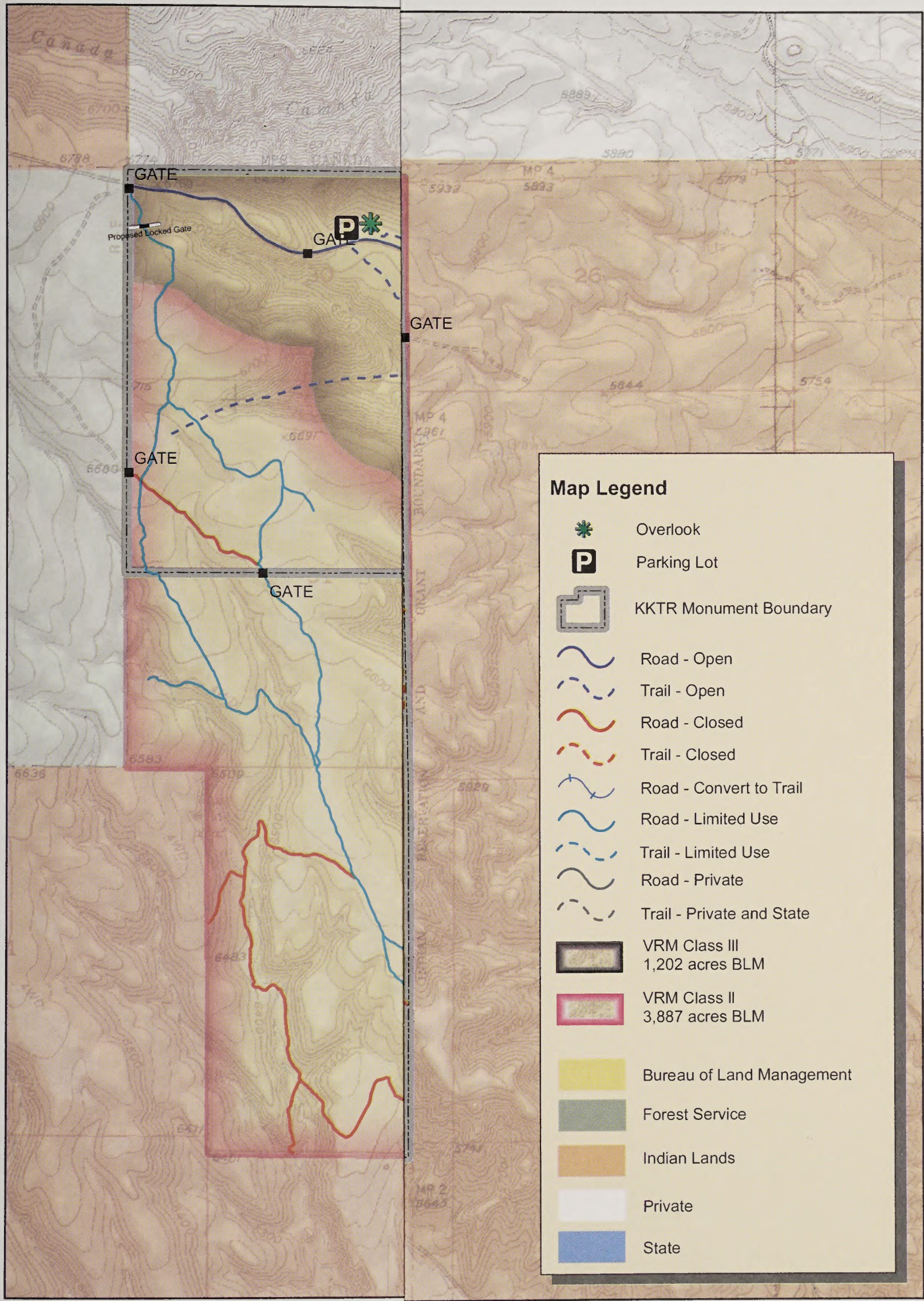
Projection: UTM Zone 13  
Datum: NAD 1983

**Map 10**  
**Areas with Special Geologic Features**









T17N

T16N

R04E



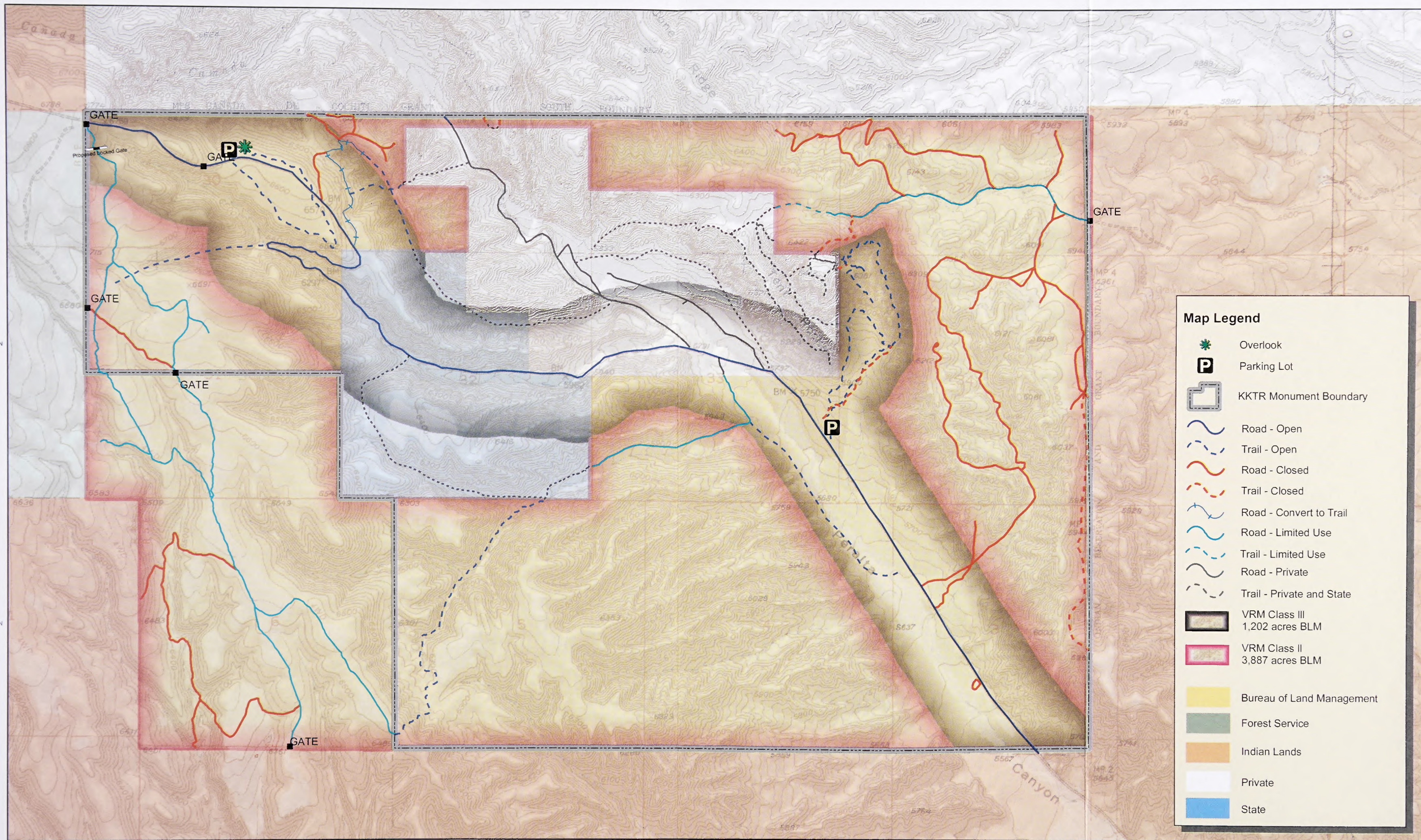
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## Map 11 VRM (Visual Resource Management) Classifications







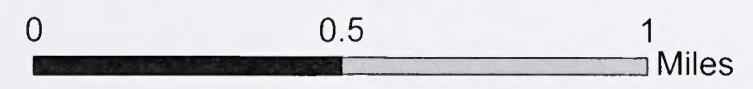


**Map Legend**

- Overlook
- Parking Lot
- KKTR Monument Boundary
- Road - Open
- Trail - Open
- Road - Closed
- Trail - Closed
- Road - Convert to Trail
- Road - Limited Use
- Trail - Limited Use
- Road - Private
- Trail - Private and State
- VRM Class III  
1,202 acres BLM
- VRM Class II  
3,887 acres BLM
- Bureau of Land Management
- Forest Service
- Indian Lands
- Private
- State



Produced for the Kasha-Katuwe Tent Rocks ROD/RMP. No warranty is made by the Bureau of Land Management as to the accuracy, reliability or completeness of these data for individual use or aggregate use with other data, or for purposes not intended by BLM. Spatial information may not meet National Map Accuracy Standards. This information may be updated without notification.



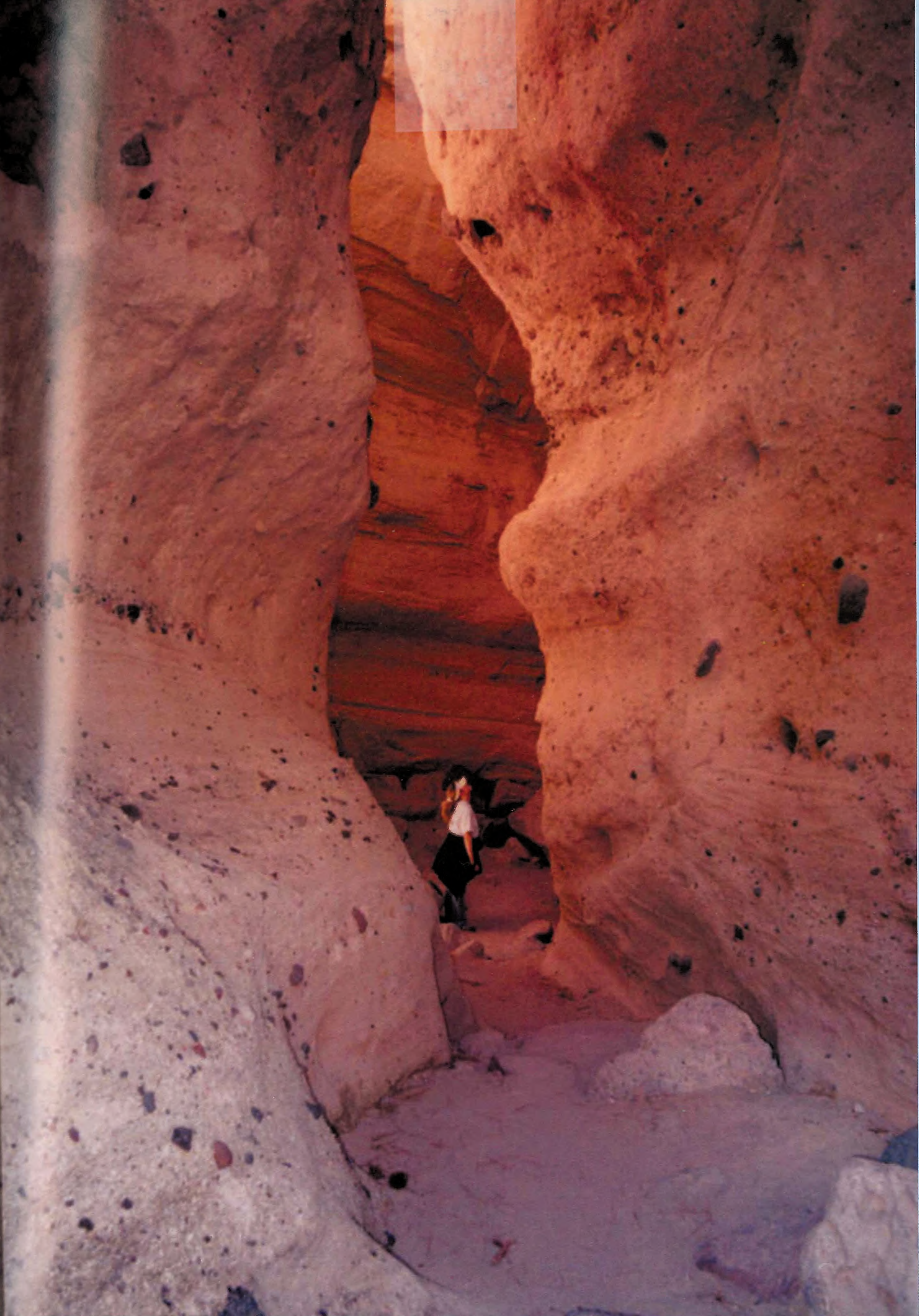
Projection: UTM Zone 13  
Datum: NAD 1983

**Map 11**  
**VRM (Visual Resource Management)**  
**Classifications**















## CHAPTER 4

### MANAGEMENT PLAN IMPLEMENTATION

#### RMP LEVEL DECISIONS

By the approval of the Plan, the following decisions have been made for the allocation and use of Federal lands and interests in lands, and resources in the Monument and Southwest Acquisition. Decisions have also been made for the lands identified for acquisition in the Planning Area; these decisions will be applied only as acquisitions are completed. Implementation of many of these decisions is dependent on funding and staffing.

##### Issue 1 - Land Tenure Adjustment

The 5,402 acres designated by Presidential Proclamation 7394 as the National Monument will continue to be designated as an Area of Critical Environmental Concern (ACEC). The Monument/ACEC will be managed for Proclamation and ACEC resource values. Management emphasis for the area will continue to be on the interpretation of geologic and scenic values, and on intensive recreation uses, especially semi-primitive non-motorized recreation opportunity. **LR-10, LR-11**

These values will also be emphasized on lands acquired and managed in conjunction with the Monument. **LR-12**

The BLM will seek to acquire the 1,278 surface acres (521 acres State, 757 acres private) within the Monument boundaries not presently in Federal ownership through exchange or purchase from willing sellers. The 837 acres (521 acres State, 316 acres private) of non-Federal mineral ownership in the Monument will likewise be acquired if owners are willing. **LR-5, LR-8**

Lands and interests in lands acquired within the Monument boundary will become part of the Monument and ACEC. These will be with-

drawn from entry or disposal except by exchange, as provided in the Proclamation. **LR-14**

The 965-acre Southwest Acquisition recently purchased by the BLM will be managed in conjunction with the Monument, and is recommended for inclusion as part of the Monument (which would require Congressional legislation). **LR-13**

The 9,268-acre State-owned North Edgeholding is identified for acquisition by exchange or purchase, and for management in conjunction with the Monument. It is also recommended for inclusion in the Monument (which would require Congressional legislation). All mineral rights with this parcel are non-Federal, except gold, silver and quicksilver (mercury), which are Federally owned. The non-Federal minerals will be acquired, if possible, to protect the Monument's resource values. **LR-5, LR-9, LR-15**

If acquisitions within the Monument boundaries are not completed, the BLM will seek to acquire a 1.05-mile easement along the portion of BLM Road 1011 that crosses private surface. This will ensure Federal control of access through the Monument. **LR-16**

If non-Federal lands cannot be acquired, the BLM will seek management control through agreements with landowners. These agreements will be focused on improving management efficiency and visitor services, and on protecting Monument resource values and non-Federal property rights. **LR-6**

While recognizing valid existing rights, the BLM will consider the Planning Area to be a right-of-way exclusion area. Rights-of-way for uses that do not currently exist will not be considered except for those that would support Monument purposes. **LR-17**



## Issue 2 - Access and Transportation

Motorized and mechanized access for recreational visits to the Monument and Planning Area will be provided on 5.95 miles of road designated as open for public access. An additional 7.8 miles of road will have limited access for authorized administrative and emergency uses only. Resource protection will be provided by closing 11.5 miles of existing roads (see Tables 2-1 and 2-2, and Map 4 in the map pocket). As acquisitions are completed, roads in the acquired areas will be evaluated and designated as open for public use, limited to authorized administrative or emergency use as a part of the transportation system, or closed and identified for rehabilitation. *AT-2, AT-3, AT-4, AT-10, AT-11*

Public motorized access is provided to approximately 1,987 Federal acres of the Planning Area. Limited motorized access for authorized administrative or emergency uses only is provided to another 2,048 acres. Non-motorized access is available to approximately 1,054 Federal acres (see Map 7). *RU-5*

Designated hiking and equestrian trails will provide an additional 8.13 miles of access to Federal lands when construction is complete on all authorized trails (see Table 2-3 and Map 4 in the map pocket for trail segment designations). As acquisitions are completed, trails in the acquired areas will be evaluated and designated as open for public use, limited to authorized administrative or emergency use as a part of the transportation system, or closed and identified for rehabilitation. Additional trails will be developed if land acquisitions are completed. Trails may also be developed on private land through Cooperative Management Agreements. *AT-6, AT-7, AT-8, AT-9, AT-13, AT-15, AT-16*

Access for research permits will be considered as authorized administrative use and will be reviewed on a case-by-case basis. Research may include field work, specimen collection, or other types of scientific study. Permits will be issued after a thorough review of research goals, strategies, operational detail, and potential for resource disturbance. The duration of each permit will vary based on applicant performance (past

and present), the resources being studied, the type and extent of resources, and other related factors. *AT-17*

The Off-Highway Vehicle (OHV) designation for the entire Planning Area is "OHV use limited to designated roads and trails" for motorized and mechanized modes of travel. *AT-12, RU-10*

If the North Edgeholding is acquired, it will initially be closed to public entry except access (1) on existing public roads or (2) with prior authorization from the Rio Puerco Field Manager. The BLM may allow a two-year period of resource survey and evaluation before making land and resource allocations. *AT-18*

## Issue 3 - Recreational Activities

The BLM will designate Federal lands within the Planning Area (including any acquired lands) as a Special Recreation Management Area (SRMA). Acquired lands will be operated under the rules at 43 CFR 8365, as they support the purposes of the Proclamation. *RU-18*

The Monument and Southwest Acquisition will be identified for day use only. If acquired, other parts of the Planning Area would also be day use only, unless a detailed evaluation (including a site-specific environmental analysis) of the resources in portions of the acquired lands shows capabilities of supporting camping without undue resource degradation. *RU-8, RU-19*

Special geologic features will be protected on 167 acres of Federally owned Monument lands for visitor viewing and observation. Identified acquisitions, if completed, could increase this area to as much as 2,284 acres. These features represent the remarkable outdoor laboratory identified in the Proclamation. *SGF-5*

Visual Resource Management (VRM) Class III will be maintained on the 1,202 acres surrounding the developed facilities to allow for facility improvement (see Map 11). VRM Class II has been assigned to the remaining 3,887 acres of public lands, where the intent will be to retain the existing character of the landscape by keeping implementation actions from attracting atten-



tion. Acquired lands will be inventoried and placed in VRM Class II or III based on the extent of cultural modifications to the landscape, the need to implement future management actions or install facilities to accommodate visitor services, and the need for resource protection and rehabilitation. *VR-3, VR-4, VR-6*

Noxious weed identification and treatment will be emphasized in the 241-acre intensive use area to reduce weed introduction by recreation users. *NW-4*

#### **Issue 4 - Ecosystem Restoration**

Resource protection will be provided by closing 11.5 miles of existing roads and 1.9 miles of existing trails (see Tables 2-1, 2-2, and 2-3, and Map 4 in the map pocket). *AT-4, AT-5*

The following two actions are expected to improve vegetative and land health, watershed condition, and wildlife habitat condition in the short term on the specified lands (see Map 6): (1) livestock grazing on the 4,088 acres of Federal lands within the Monument currently under grazing permit will be discontinued, and (2) no grazing permit will be issued for the 965-acre Southwest Acquisition. If, in time, the BLM determines that short-duration grazing would help to achieve specific vegetative or ecological objectives within the Planning Area, a non-renewable permit for such use may be issued. *LG-2, LG-4, LG-8*

A riparian monitoring program will be established on a few acres of Federal land to determine the potential for riparian habitat development. If potential is shown, a more intense riparian restoration program will be pursued. Acquisition of the private land along Peralta Canyon from willing sellers could increase this potential. Riparian habitat will be expanded to the extent that potential is indicated (see Map 8). *RIP-3, RIP-8*

Woodlands and vegetative treatments will be applied on acreages and areas identified on Map 5 to move the Fire Regime Condition (FRC) Class from Classes II and III toward Class I. Treatments will be prioritized based on percent

slope, FRC class, access, and ownership of the areas to be treated. The Planning Area is identified as a separate Fire Management Unit (FMU). It will be managed as FMU B/4, defined as an area "where unplanned wildland fire is not desired because of current conditions." *FM-3, FM-4*

The New Mexico Standards for Public Land Health and Guidelines for Livestock Grazing Management (USDI, BLM 2000), approved by the Secretary of the Interior's Decision of January 12, 2001, are carried forward into this RMP. These standards include: (1) the uplands site standard; (2) the biotic communities standard (including native, threatened and endangered, and special status species); and (3) the riparian sites standard. *PLH-2*

#### **Issue 5 - American Indian Uses and Traditional Cultural Practices**

Roads and trails will be minimized in traditional use areas by road and trail closures and relocations. *AIU-5*

The Pueblo de Cochiti will continue to be involved in management of the Monument and Planning Area through Cooperative Management Agreements. The Pueblo will continue to have close day-to-day participation in managing the Monument. *AIU-6*

On an infrequent basis, the Pueblo can temporarily close roads for control of access to avoid disruption of tribal ceremonies. *AIU-4*

#### **PLAN DECISIONS**

Implementation of the decisions identified in Chapter 2 will begin with the signing of the Record of Decision. Some of the designations, such as "open," "limited," and "closed" roads and the designation of Federally owned lands in the Planning Area as a Special Recreation Management Area, are effective immediately upon signing. These decisions are listed in the last section of Chapter 1.

The following table lists each decision made in the Plan (see Chapter 2). It also lists whether



implementation of the decision is short term or long term, estimated costs, status, and whether it is a one-time, periodic, or ongoing action. Table 4-1 will be used for tracking implementation of the RMP decisions. The estimated costs for

implementation will be refined as they become priority for implementation. **Decision implementation will be based on funding and staff availability, and often involves initial development costs and ongoing maintenance costs.**



TABLE 4-1

## SUMMARY OF DECISIONS BY PROGRAM

DECISION OR ACTION		TERM		PRIORITY	ONE-TIME COSTS		RECURRING COSTS		STATUS	DURATION
#	PROGRAM	Short (1-5 years)	Long (6-20 years)		Work Months	Other Costs	Work Months	Other Costs		
	<b>Access and Transportation</b>									
AT-1a	Promote safety of all users of the public lands.	x	x	1	—	—	1	2,000	4	3
AT-1b	Minimize conflicts between various users of the public lands.	x	x	1	—	—	—	—	4	3
AT-2	Designate 5.95 miles of "Open" transportation routes.	x	x	1	—	—	1	2,000	2	1
AT-3	Designate 7.8 miles of transportation routes as "Limited" to authorized administrative and emergency use only.	x	x	1	—	—	1	1,000	2	1 & 3
AT-4	Close 11.5 miles of roads.	x	x	1	6	100,000	—	—	2	1
AT-5	Close 1.9 miles of trails to public use.	x	x	1	1	30,000	—	—	2	1
AT-6	Designate 6.33 miles of "Open" trails.	x	x	1	1	2,000	—	—	2	1
AT-7	Designate 0.2 mile of trail as limited to authorized administrative or emergency use.	x	x	1	0.5	1,000	—	—	2	1
AT-8	Designate 0.9 mile of new trail "Open."	x	x	1	4	10,000	—	—	2	1
AT-9	Designate 0.7 mile of converted road to "Open" trail.	x	x	1	2	30,000	—	—	2	1
AT-10	In areas of acquired lands, evaluate and designate roads as open for public use, limited to authorized administrative or emergency use, or closed.	x	x	1	6	25,000	—	—	3	1
AT-11	Rehabilitate portions of closed roads that are not likely to rehabilitate naturally.	x	x	1	2	20,000	—	—	3	1
AT-12	Designate the Planning Area as limited to designated roads and trails for motorized and mechanized modes of travel.	x	x	1	1	2,000	—	—	2	1
AT-13	In areas of acquired lands, evaluate and designate trails as open for public use, limited to authorized administrative or emergency use, or closed.	x	x	1	6	25,000	—	—	3	1
AT-14	In areas of acquired lands, rehabilitate portions of closed trails that are not likely to rehabilitate naturally.	x	x	1	4	20,000	—	—	3	1



DECISION OR ACTION		TERM		PRIORITY	ONE-TIME COSTS		RECURRING COSTS		STATUS	DURATION
#	PROGRAM	Short (1-5 years)	Long (6-20 years)	1-High 2-Medium 3-Low 4-Completed	Work Months	Other Costs	Work Months	Other Costs	1-Proclamation 2-Designation 3-Implementation 4-Regulation/ Policy	1-One time 2-Periodic 3-Ongoing 4-As Needed
AT-15	If land acquisitions are completed, develop additional trails.	x	x	3	6	50,000	—	—	2	1
AT-16	Develop trails on private land through Cooperative Management Agreements with willing owners.	x	x	3	***	***	—	—	3	4
AT-17	Access for research permits will be considered as authorized administrative use and will be reviewed on a case-by-case basis.	x	x	1	—	—	***	***	3	4
AT-18	If the North Edgeholding is acquired, close the area to public entry except access on existing public roads or with prior authorization from the Rio Puerco Field Manager. Allow a 2-year period of resource survey and evaluation before making land and resource allocations. Provide guided tours in the interim. After consulting with potentially affected American Indian tribes, carrying out resource data inventory, including assessment of cultural resources, and after implementing measures to mitigate potential adverse effects to cultural resources and other resources, open the area with appropriate restrictions.	x	x	3	36	628,000	—	—	3	1
AT-19	BLM Road 1011 will have different hours of operation summer and winter. It may be closed at the fee station if it becomes impassible and be closed seasonally in T. 17 N., R. 4 E., Sec. 30 for fire protection.	x	x	1	—	—	—	—	3	2
	<b>Air Quality</b>									
AQ-1	Prevent significant deterioration of the Class II airshed designated by the Clean Air Act.	x	x	1	—	—	—	—	4	3
AQ-2	Design and stipulate all actions and use authorizations to protect air quality in and adjacent to the Monument and Planning Area, and the nearby National Park Service Bandelier National Monument Class I area.	x	x	1	—	—	—	—	4	3



DECISION OR ACTION		TERM		PRIORITY	ONE-TIME COSTS		RECURRING COSTS		STATUS	DURATION
#	PROGRAM	Short (1-5 years)	Long (6-20 years)	1-High 2-Medium 3-Low 4-Completed	Work Months	Other Costs	Work Months	Other Costs	1-Proclamation 2-Designation 3-Implementation 4-Regulation/ Policy	1-One time 2-Periodic 3-Ongoing 4-As Needed
	<b>American Indian Uses and Traditional Cultural Practices</b>									
AIU-1	The BLM's American Indian Consultation Policy will be followed as the Monument is managed.	x	x	1	—	—	—	—	4	3
AIU-2	Under existing authorities the BLM seeks to ensure that tribal issues and concerns are given legally adequate consideration during decision-making.	x	x	1	—	—	—	—	4	3
AIU-3	Developments and recreation management policies will be oriented, in part, toward discouraging visitor use in sensitive areas identified by American Indians.	x	x	1	2	20,000	—	—	4	1 & 3
AIU-4	With appropriate advance notice, the BLM will consider brief, temporary closures of all or portions of the Monument and Southwest Acquisition to ensure privacy for traditional uses.	x	x	1	—	—	—	—	3	4
AIU-5	Roads and trails will be minimized in traditional use areas by road and trail closures and relocations.	x	x	1	—	—	—	—	1 & 3	3
AIU-6	The Pueblo de Cochiti will continue to be involved in management of the Monument and Planning Area through Cooperative Management Agreements. The Pueblo will continue to have close day-to-day participation in managing the Monument.	x	x	1	—	—	1	126,000	1 & 3	3
	<b>Cultural Resources</b>									
CR-1a	The goals of the BLM's Cultural Resources Program are defined in BLM Manual 8100. Managing cultural resources is viewed as an integrated system of identifying and evaluating cultural resources, deciding on their appropriate uses, and administering them accordingly. The objectives are as follows:	x	x	1	—	—	—	—	4	3
CR-1b	Respond in a legally sufficient and professional manner to the legal authorities concerning historic preservation and cultural resource protection, and to the principles of multiple use.	x	x	1	—	—	—	—	4	3



DECISION OR ACTION		TERM		PRIORITY	ONE-TIME COSTS		RECURRING COSTS		STATUS	DURATION
#	PROGRAM	Short (1-5 years)	Long (6-20 years)		Work Months	Other Costs	Work Months	Other Costs		
CR-1c	Recognize potential public and scientific uses of cultural resources on public lands, managing the lands and cultural resources so that these uses and values are appropriately protected.	x	x	1	—	—	—	—	4	1-One time 2-Periodic 3-Ongoing 4-As Needed
CR-1d	Contribute to land use planning and multiple use management in ways that (1) make optimum use of the thousands of years of land use history inherent in cultural resource information, and (2) safeguard opportunities for achieving appropriate uses of cultural resources.	x	x	1	—	—	—	—	4	3
CR-1e	Protect and preserve in place representative examples of the full array of cultural resources on public lands for the benefit of scientific and public use by present and future generations.	x	x	1	—	—	—	—	4	3
CR-1f	Ensure that proposed land uses avoid inadvertent damage to Federal and non-Federal cultural resources.	x	x	1	—	—	—	—	3	4
CR-1g	Further the goals of the Department of the Interior and BLM Strategic Plans, and the Government Performance and Results Act.	x	x	1	—	—	—	—	4	3
CR-2	No person may use, injure, destroy, or remove any feature of this Monument without authorization, nor locate nor settle upon any of the lands.	x	x	1	—	—	—	—	1	3
CR-3	Comply with the National Historic Preservation Act through procedures described in the "Protocol Agreement Between New Mexico Bureau of Land Management and New Mexico State Historic Preservation Officer" (signed in June 2004) or any later agreements.	x	x	1	—	—	—	—	4	3
CR-4	More stringent inventory requirements will be in effect, with larger buffers and Class III inventory, in all questionable cases.	x	x	1	—	—	—	—	3	4
CR-5	Inventory 0.65 miles of "open" roads and 7.8 miles of roads limited to authorized administrative and emergency use only before further maintenance is done.	x	x	3	0.5	—	—	—	3	1



DECISION OR ACTION		TERM		PRIORITY	ONE-TIME COSTS		RECURRING COSTS		STATUS	DURATION
#	PROGRAM	Short (1-5 years)	Long (6-20 years)	1-High 2-Medium 3-Low 4-Completed	Work Months	Other Costs	Work Months	Other Costs	1-Proclamation 2-Designation 3-Implementation 4-Regulation/ Policy	1-One time 2-Periodic 3-Ongoing 4-As Needed
CR-6	The 11.5 miles of "closed" roads will be inventoried if rehabilitation is needed following closure.	x	x	1	0.5	—	—	—	1 & 3	1
CR-7	1.72 miles of "closed" trails will be inventoried if rehabilitation is needed following closure.	x	x	1	0.5	—	—	—	1 & 3	1
CR-8	Address the secondary effects of recreational use on cultural resources by requiring inventory of expanded buffer areas around recreational developments. Inventories for parking areas, scenic viewing areas, picnic areas, and similar developments will include a minimum 100-meter-wide buffer.	x	x	1	0.5	—	—	—	3 & 4	1
CR-9	For hiking trails, a minimum 30-meter-wide buffer will be inventoried on each side of the trail, resulting in examination of a 60-meter-wide corridor.	x	x	1	1	—	—	—	3 & 4	1
CR-10	Inventory of the 6.32 miles of "open" and "limited" trails that have not yet been inventoried will be completed by the end of September 2008.	x		1	1	—	—	—	3 & 4	1
CR-11	Vegetation treatments in sensitive settings will be subject to Class III inventory if the use of fire or any form of surface disturbance is proposed, including vehicle use off road and dragging of slash.	x	x	1	—	—	1	—	3 & 4	3
CR-12	If lands containing water wells are acquired, the BLM will perform cultural resource inventories to ensure that no damage occurs in association with well use or maintenance.	x	x	1	0.5	—	—	—	3 & 4	1
CR-13	Discourage activities that involve excavation or collection of cultural materials. Such activities will ordinarily be considered only when such materials face an immediate threat.	x	x	1	—	—	—	—	3 & 4	4
CR-14	Archeological resources within the Monument and Southwest Acquisition will be available for scientific study that does not involve excavation or collection of cultural materials. Exceptions to this policy will be made only after extensive consultation with all concerned American Indian tribes.	x	x	1	—	—	***	***	1 & 3 & 4	4



DECISION OR ACTION		TERM		PRIORITY	ONE-TIME COSTS		RECURRING COSTS		STATUS	DURATION
#	PROGRAM	Short (1-5 years)	Long (6-20 years)		Work Months	Other Costs	Work Months	Other Costs		
	<b>Environmental Justice</b>									
EJ-1	BLM will continue to identify, inform, and consult with minority and low-income groups about Federal actions that may affect them, and should not disproportionately impact these groups in an adverse way.	x	x	1	—	—	—	—	4	3
EJ-2	Minority and low-income people will be continue to be consulted and kept informed.	x	x	1	—	—	—	—	4	3
	<b>Fire Management</b>									
FM-1	Utilize approved fire use and mechanical treatments to restore and maintain primary natural resources and their processes where applicable in order to move the landscape from Fire Regime Condition (FRC) Class II and Class III to FRC Class I, as well as to reduce wildland fire hazard around recreational facilities and identified cultural resources.	x	x	1	—	—	2	14,000	4	3
FM-2	Apply mechanical fuel reduction and prescribed fire where applicable around vulnerable recreational facilities and prehistoric and historic cultural resources to avoid or reduce the probability of damage from wildland fire.	x	x	1	—	—	see FM-1	see FM-1	3	3
FM-3	Kasha-Katuwe Tent Rocks National Monument is a separate Fire Management Unit (FMU). The Planning Area will be managed as FMU B/4.	x	x	1	—	—	—	—	2	3
FM-4	Manage the Planning Area to treat FRC Class II and Class III lands to move their condition toward Class I.	x	x	1	—	—	see FM-1	see FM-1	2	3
FM-5	The Appropriate Management Response (AMR) for FMU B/4 is to prevent wildland fires from spreading to private lands, cultural resources or improvements on BLM lands, other agencies' lands, and to protect the public users. AMR will be used to manage all fires in accordance with management objectives based on current conditions and fire location.	x	x	1	—	—	—	30,000 each wildland fire	3	4



DECISION OR ACTION		TERM		PRIORITY	ONE-TIME COSTS		RECURRING COSTS		STATUS	DURATION
#	PROGRAM	Short (1-5 years)	Long (6-20 years)	1-High 2-Medium 3-Low 4-Completed	Work Months	Other Costs	Work Months	Other Costs	1-Proclamation 2-Designation 3-Implementation 4-Regulation/ Policy	1-One time 2-Periodic 3-Ongoing 4-As Needed
FM-6	Comply with the NM Standards for Public Land Health in implementing fire management treatments.	x	x	1	—	—	—	—	3	3
	<b>Hazardous Materials/Solid Waste</b>									
HzM-1	Investigate reported hazardous materials/solid waste sites, and initiate containment and/or removal actions on a case-by-case basis. Sites that are reported will be handled under current regulations, with potentially responsible parties identified and pursued based on best available information.	x	x	1	—	—	***	***	4	4
	<b>Lands and Realty</b>									
LR-1	Continue to acquire land and easements within the Planning Area, protect the resources for which the Monument was established, and ensure that any rights-of-way or land use permits issued are consistent with management goals for other resource programs and uses.	x	x	1	—	—	—	—	1 & 3	3
LR-2	The Monument is subject to valid existing rights.	x	x	1	—	—	—	—	1	3
LR-3	Nothing in the Proclamation revokes any existing withdrawal, reservation, or appropriation; however, the Monument is the dominant reservation.	x	x	1	—	—	—	—	1	3
LR-4	No person may use, injure, destroy, or remove any feature of the Monument without authorization, nor locate nor settle upon any of the lands.	x	x	1	—	—	See LR-11	See LR-11	1	3
LR-5	If willing sellers are available in the long term, the BLM will seek to acquire through exchange or purchase the 1,278 acres of non-Federal land within the Monument and the 9,268-acre North Edgeholding to complement management of Monument values.		x	2	3	800,000	—	—	3	1
					4	0 exchange				
LR-6	Seek Cooperative Management Agreements with non-Federal landowners to provide for some level of public use if acquisition is not possible.	x	x	1	1	—	—	—	3	1



DECISION OR ACTION		TERM		PRIORITY	ONE-TIME COSTS		RECURRING COSTS		STATUS	DURATION
#	PROGRAM	Short (1-5 years)	Long (6-20 years)		Work Months	Other Costs	Work Months	Other Costs		
LR-7	The Federal government owns 4,565 acres of minerals beneath the Monument. This acreage has been withdrawn from mineral entry by conditions of the Proclamation.	x	x	1	—	—	—	—	1	1
LR-8	The 837 acres (521 acres State, 316 acres private) of non-Federal mineral ownership in the Monument will be acquired if owners are willing. As other minerals are acquired within the Monument, they will also be withdrawn from mineral entry under the Proclamation.	x	x	1	See LR-5, + 1 for withdrawal	See LR-5	—	—	3	1
LR-9	All minerals under the 965-acre Southwest Acquisition are in Federal ownership. The North Edgeholding (9,268 acres) has split mineral ownership, with gold, silver, and quicksilver/mercury in Federal ownership and all other minerals in non-Federal ownership. The BLM will seek to acquire these mineral rights along with the surface. The BLM will withdraw all Federal minerals within the Planning Area, subject to valid existing rights.	x	x	2	—	—	—	—	3	1
LR-10	The 5,402 acres designated by Presidential Proclamation 7394 as the National Monument will continue to be designated as an Area of Critical Environmental Concern (ACEC).	x	x	1	—	—	—	—	3	1
LR-11	The Monument/ACEC will be managed for Proclamation and ACEC resource values. Management emphasis for the area will continue to be on the interpretation of geologic and scenic values, and on intensive recreational uses, especially semi-primitive non-motorized recreation opportunities.	x	x	1	1	20,000	24	30,000	3	1 & 3
LR-12	Monument and ACEC values will be emphasized on lands acquired and managed in conjunction with the Monument.	x	x	1	—	—	—	—	3	3
LR-13	The 965-acre Southwest Acquisition recently purchased by the BLM will be managed in conjunction with the Monument, and is recommended for inclusion as part of the Monument (which would require Congressional legislation).	x	x	1	—	—	1	—	3	3



DECISION OR ACTION		TERM		PRIORITY	ONE-TIME COSTS		RECURRING COSTS		STATUS	DURATION
#	PROGRAM	Short (1-5 years)	Long (6-20 years)	1-High 2-Medium 3-Low 4-Completed	Work Months	Other Costs	Work Months	Other Costs	1-Proclamation 2-Designation 3-Implementation 4-Regulation/ Policy	1-One time 2-Periodic 3-Ongoing 4-As Needed
LR-14	Lands and interests in lands acquired within the Monument boundary will become part of the Monument and ACEC. These will be withdrawn from entry or disposal except by exchange, as provided in the Proclamation.	x	x	1	see LR-8 & LR-9	see LR-8 & LR-9	—	—	1 & 3	1
LR-15	If acquired, the 9,268-acre North Edgeholding is recommended for inclusion in the Monument (which would require Congressional legislation).	x	x	1	—	—	—	—	3	1
LR-16	If acquisitions within the Monument boundaries are not completed, the BLM will seek to acquire a 1.05-mile easement on the portion of BLM Road 1011 that crosses private surface through the Monument.	x	x	1	1	5,000	—	—	3	1
LR-17	While recognizing valid existing rights, the BLM will consider the Planning Area to be a right-of-way exclusion area. Rights-of-way for uses that do not currently exist will not be considered except for those that would support Monument purposes.	x	x	1	—	—	***	***	2 & 3	4
<b>Livestock Grazing</b>										
LG-1	BLM's goals in permitting livestock grazing on public land are as follows:									
LG-1a	Promote healthy, sustainable rangeland ecosystems.	x	x	3	—	—	—	—	3	3
LG-1b	Accelerate the restoration and improvement of public rangelands to properly functioning condition.	x	x	2	—	—	—	—	3	3
LG-1c	Promote the orderly use, improvement, and development of the public lands.	x	x	2	—	—	—	—	3	3
LG-1d	Provide for the sustainability of the western livestock industry and communities that are dependent upon productive, healthy rangelands.	x	x	3	—	—	—	—	1 & 3	4
LG-1e	Establish efficient and effective administration of grazing on public rangelands.	x	x	3	—	—	—	—	1 & 3	4
LG-2	Discontinue livestock grazing use on the 4,088 acres of Federal land currently under two Federal grazing permits within the Monument.	x	x	1	0.5	—	—	—	1 & 3	1



DECISION OR ACTION		TERM		PRIORITY	ONE-TIME COSTS		RECURRING COSTS		STATUS	DURATION
#	PROGRAM	Short (1-5 years)	Long (6-20 years)	1-High 2-Medium 3-Low 4-Completed	Work Months	Other Costs	Work Months	Other Costs	1-Proclamation 2-Designation 3-Implementation 4-Regulation/ Policy	1-One time 2-Periodic 3-Ongoing 4-As Needed
LG-3	Acreage closed to grazing will be fenced and range developments removed if they are not converted to another purpose (e.g., wildlife waters, recreational uses).	x	x	1	1	64,000	0.5	3,000	3	1
LG-4	Short-duration grazing on Federal land within the Planning Area may be allowed under a non-renewable grazing permit if the BLM determines it will advance the purposes of the Proclamation.	x	x	1	—	—	—	—	1 & 3	4
LG-5	Before permitting short-term livestock grazing on Federal land within the Planning Area, the BLM will prepare an environmental assessment to determine the impacts of the proposed grazing use.	x	x	1	0.5	—	—	—	3	4
LG-6	If short-term grazing use is approved, the BLM will issue a non-renewable grazing permit with terms for the proposed grazing period.	x	x	1	0.5	—	—	—	1 & 3	4
LG-7	Privately owned range improvements will be removed by the permittee or purchased by the BLM, at fair market value, if they can be converted to other uses.	x		1	3	100,000	0.5	6,000	3	1
LG-8	No grazing permit will be issued for the 965-acre Southwest Acquisition, unless the BLM determines that short-duration grazing would help to achieve specific vegetative or ecological objectives.	x	x	1	—	—	—	—	3	4
	<b>Noxious Weeds</b>									
NW-1	The goals and strategies identified in the BLM Partners Against Weeds (PAWS) action plan will be implemented as needed for noxious weed management for the Rio Puerco Field Office. The portions of the PAWS action plan which need to be implemented immediately are: Prevention and Detection; Education and Awareness; Inventory; Planning; Integrated Weed Management; Coordination; and Monitoring, Evaluation, Research, and Technology Transfer.	x	x	1	—	—	0.5	10,000	3	3
NW-1a	Delineate high priority areas for prevention of noxious	x	x	1	—	—	—	—	3 & 4	4



DECISION OR ACTION		TERM		PRIORITY	ONE-TIME COSTS		RECURRING COSTS		STATUS	DURATION
#	PROGRAM	Short (1-5 years)	Long (6-20 years)		Work Months	Other Costs	Work Months	Other Costs		
	weed infestation. Review and modify, where necessary, all activities authorized or conducted on BLM land for their potential to spread weeds. This includes evaluating the potential for noxious weed invasion in the effects analysis of each NEPA document. Newly introduced weed species will be identified and documented.								1-Proclamation 2-Designation 3-Implementation 4-Regulation/ Policy	1-One time 2-Periodic 3-Ongoing 4-As Needed
NW-1b	Conduct workshops for all field personnel to update their knowledge of noxious weeds, to include identification and the problems noxious weeds can cause. Continue to work to establish county weed associations in developing and implementing outreach plans.	x	x	1	—	—	—	—	3 & 4	4
NW-1c	Monitor all known populations of noxious weeds and update the inventory as needed on a yearly basis.	x	x	1	—	—	See NW-2	See NW-2	3 & 4	2
NW-1d	Include provisions for noxious weed management in all BLM-funded or -authorized actions.	x	x	1	—	—	—	—	3 & 4	4
NW-1e	Determine the best management options using a combination of the four general categories identified for weed management (Cultural, Physical Control, Biological Control, and Herbicides).	x	x	1	—	—	—	—	3 & 4	4
NW-1f	Continue and expand cooperation with other Federal agencies, State and county governments, organizations, and private landowners in the fight against weeds.	x	x	1	—	—	—	—	3 & 4	4
NW-1g	Continue to work with the Cooperative Extension Service and others on research for control methods for noxious weeds. Establish monitoring programs to determine if BLM is meeting its management objectives with weed management programs.	x	x	1	—	—	—	—	3 & 4	3
NW-2	Monitoring and a vigorous integrated weed management program will be a part of Planning Area management (including on acquired land), in accordance with Standard Operating Procedures found in Instruction Memorandum NM-010-99-01 ("Noxious Weed Prevention Schedule for Albuquerque Field Office").	x	x	1	—	—	0.5	1,000	3	2 & 3



DECISION OR ACTION		TERM		PRIORITY	ONE-TIME COSTS		RECURRING COSTS		STATUS	DURATION
#	PROGRAM	Short (1-5 years)	Long (6-20 years)	1-High 2-Medium 3-Low 4-Completed	Work Months	Other Costs	Work Months	Other Costs	1-Proclamation 2-Designation 3-Implementation 4-Regulation/ Policy	1-One time 2-Periodic 3-Ongoing 4-As Needed
NW-3	Any Cooperative Agreement that is developed for land use will also include provisions for weed monitoring and treatment.	x	x	1	—	—	—	—	3	4
NW-4	Emphasize noxious weed identification and treatment in the 241-acre intensive visitor use area to reduce weed introduction by recreation users.	x	x	1	—	—	See NW-2	See NW-2	3	3
	<b>Paleontology</b>									
P-1	Provide a consistent and comprehensive approach to identification, evaluation, protection, and use.	x	x	1	—	—	—	—	3	3
P-2	Consider any ground-disturbing activities on public land in the Planning Area on a case-by-case basis for the need to mitigate potential impacts to fossil resources.	x	x	1	—	—	***	***	3	4
P-3	No person may use, injure, destroy, or remove any fossils—invertebrate and vertebrate fossils, and plant fossils.	x	x	1	—	—	—	—	1 & 3 & 4	3
P-4	Evaluate, manage, and protect any fossils identified on a case-by-case basis. Visitors will be encouraged to report fossil discoveries to the BLM.	x	x	1	—	—	***	***	3 & 4	4
	<b>Public Land Health</b>									
PLH-1	Objectives for public land health are found at 43 CFR 4180.1, which mandates the following conditions:									
PLH-1a	Watersheds are in—or are making significant progress toward—properly functioning physical condition (including their upland, riparian-wetland, and aquatic components).	x	x	1	—	—	—	—	3	3
PLH-1b	The soil and plant conditions support infiltration, soil moisture storage, and the release of water in balance with climate and landform.	x	x	1	—	—	—	—	3	3
PLH-1c	The soil and plant conditions maintain or improve water quality, water quantity, and timing and duration of flow.	x	x	1	—	—	—	—	3	3
PLH-1d	Ecological processes—including the hydrologic cycle, nutrient cycle, and energy flow—are maintained, or there is significant progress toward their attainment, to support	x	x	1	—	—	—	—	3	3



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	healthy biotic populations and communities.									
PLH-2	The New Mexico Standards for Public Land Health and Guidelines for Livestock Grazing Management are carried forward. These standards include: (1) the upland sites standard; (2) the biotic communities standard (including native, threatened, endangered, and special status species); and (3) the riparian sites standard.	x	x	1	—	—	—	—	1 & 3 & 4	1 & 3
PLH-2a	Upland Sites Standard - Upland ecological sites are in a productive and sustainable condition within the capability of the site. Upland soils will be stabilized and exhibit infiltration and permeability rates that are appropriate for the soil type, climate, and landform. The kind, amount, and/or pattern of vegetation will provide protection on a given site to minimize erosion and assist in meeting State and tribal water quality standards.	x	x	1	—	—	—	—	3	3
PLH-2b	Biotic Communities Standard (Including Native, Threatened, Endangered, and Special Status Species) - Ecological processes such as hydrologic cycle, nutrient cycle, and energy flow support productive and diverse native biotic communities, including special status, threatened, and endangered species appropriate to site and species. Desired plant community goals maintain and conserve productive and diverse populations of plants and animals which sustain ecological functions and processes. Restoration should first be achieved with native, and when appropriate, non-native plants.	x	x	1	—	—	—	—	3	3
PLH-2c	Riparian Sites Standard - Riparian areas are in a productive, properly functioning, and sustainable condition, within the capability of that site. Adequate vegetation of diverse age and composition will be present that will withstand high stream flow, capture sediment, provide for groundwater recharge, provide habitat, and assist in meeting State and Tribal water quality standards.	x	x	1	—	—	—	—	3	3



DECISION OR ACTION		TERM		PRIORITY	ONE-TIME COSTS		RECURRING COSTS		STATUS	DURATION
#	PROGRAM	Short (1-5 years)	Long (6-20 years)		Work Months	Other Costs	Work Months	Other Costs		
	<b>Recreational Uses</b>									
RU-1	The management goals for the BLM's Outdoor Recreation Program are as follows:									
RU-1a	Provide a broad spectrum of resource-dependent recreational opportunities to meet public needs and demands.	x	x	1	—	—	—	—	3	3
RU-1b	Foster agency-wide efforts to improve services to the visiting public.	x	x	1	—	—	—	—	3	3
RU-1c	Maintain high-quality recreation facilities to meet public needs and enhance the image of the agency.	x	x	1	—	—	6	30,000	3	3
RU-1d	Improve public understanding and support by effectively communicating the BLM's mission of multiple-use management to visitors.	x	x	1	—	—	—	—	3	3
RU-2	For the Monument, the following additional objectives apply. Through the two Cooperative Agreements between the Pueblo de Cochiti and the BLM, the two entities strive to achieve the following:	x	x	1	—	—	1	5,000	1 & 3	3
RU-2a	Enhance the manageability of the Monument.	x	x	1	—	—	—	—	3	3
RU-2b	Provide for resource protection, and visitor health and safety.	x	x	1	—	—	1	10,000	3	3
RU-2c	Provide outstanding customer service for visitors while controlling visitor use.	x	x	1	—	—	—	—	3	3
RU-2d	Provide for economic opportunity through employment and services.	x	x	1	—	—	—	—	3	3
RU-2e	Ensure continuity of traditional tribal practices.	x	x	1	—	—	—	—	1 & 3	3
RU-2f	Maintain tranquility for the Pueblo de Cochiti.	x	x	1	—	—	—	—	3	3
RU-3	As stated in the Proclamation, "for the purpose of protecting the objects identified, the Secretary shall prohibit all motorized and mechanized vehicle use off road, except for emergency or authorized administrative purposes."	x	x	1	—	—	—	—	1 & 3	3
RU-4	Continue to manage Kasha-Katuwe Tent Rocks National Monument as a fee site.	x	x	1	—	—	0.5	2,000	3 & 4	3
RU-5	The Recreation Opportunity Spectrum system divides the area into three visitor experience zones—semi-primitive	x	x	1	—	—	—	—	2 & 3 & 4	1



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	motorized use (2,048 acres), semi-primitive non-motorized use (1,054 acres), and roaded natural use (1,987 acres).									
RU-6	Manage the 241 acres around the picnic facilities, National Recreation Trail, scenic overlook, and special geologic features for intensive visitation and use.	x	x	1	—	—	See LR-11	See LR-11	2 & 3	3
RU-7	Manage the remaining 4,848 acres for dispersed visitation and use, with no BLM facilities being built, except as needed for resource protection, or visitor health, safety and convenience.	x	x	1	—	—	See LR-11	See LR-11	2 & 3	3
RU-8	Emphasize day use and prohibit camping or overnight occupancy in the Monument and Southwest Acquisition.	x	x	1	—	—	—	—	3	3
RU-9	Use interpretive tools (e.g., signs, kiosks, brochures, websites, and on-the ground presence) to help protect the objects of cultural, biological, and geologic interest by enabling visitors to understand and appreciate these resources.	x	x	1	—	—	2	20,000	3	3
RU-10	The designation of the Planning Area is "OHV use limited to designated roads and trails" for motorized and mechanized modes of travel.	x	x	1	—	—	—	—	2	1
RU-11	Allow mountain bikes and limited forms of motorized vehicles (except all-terrain vehicles and dirt bikes) on the primary access road (BLM Road 1011) through the Planning Area when the road is open to public use.	x	x	1	—	—	—	—	3	3
RU-12	Authorize equestrian use on a case-by-case basis and direct to Federal lands in the Monument and Southwest Acquisition that are south and west of BLM Road 1011.	x	x	1	6 [for horse facilities]	100,000 [for horse facilities]	1	30,000	3	3 & 4
RU-13	Maintain existing visitor facilities in the intensive use area.	x	x	1	—	—	12	50,000	3	3
RU-14	Build new facilities as needed for resource protection, and visitor health, safety and convenience. Includes hard-surfacing 5.9 miles of BLM Road 1011.	x	x	1	6	250,000	2	30,000	3	1 & 4
					6	2,000,000				



DECISION OR ACTION		TERM		PRIORITY	ONE-TIME COSTS		RECURRING COSTS		STATUS	DURATION
#	PROGRAM	Short (1-5 years)	Long (6-20 years)		Work Months	Other Costs	Work Months	Other Costs		
RU-15	Work with other landowners in the Planning Area to provide additional opportunities to view the special geologic features and scenic values, and expand recreational use of the area, as well as to prevent unwanted trespass on non-Federal lands.	x	x	1	—	—	—	—	1-Proclamation 2-Designation 3-Implementation 4-Regulation/ Policy	1-One time 2-Periodic 3-Ongoing 4-As Needed
RU-16	Make drinking water available for visitors in or near the Monument. Option 1—bottled water Option 2—water system	x	x	1	1 6	— 1,500,000	— 1	— 10,000	3	3
RU-17	If the North Edgeholding is acquired, utilize the Cooperative Management Agreement with the Pueblo de Cochiti for assistance in providing an on-the-ground presence until further resource studies are completed.	x	x	1	6	30,000	—	—	1 & 3	1
RU-18	Designate Federal lands within the Planning Area (including any acquired lands) as a Special Recreation Management Area.	x	x	1	—	—	—	—	2 & 3	1
RU-19	If acquired, other parts of the Planning Area will also be day use only, unless a detailed evaluation (including a site-specific environmental analysis) of the resources in portions of the acquired lands shows capabilities of supporting camping without undue resource degradation.	x	x	1	4	50,000	0.5	10,000	3	1 & 3
RU-20	Study acquired lands for their suitability for equestrian use, including overnight pack trips.	x	x	1	1	10,000	—	—	3	4
RU-21	Coordinate hunting regulation with the New Mexico Department of Game and Fish.	x	x	1	1	—	See WL-4e	See WL-4e	3	1 & 4
<b>Riparian Areas</b>										
RIP-1a	Maintain, restore, improve, protect, and expand riparian-wetlands areas for their productivity, biological diversity, and sustainability so that they are in properly functioning condition.	x	x	1	—	—	—	—	3	3
RIP-1b	Identify watersheds that may need special protection from the standpoint of human health concerns, aquatic ecosystem health, or other public uses. For riparian areas, identify	x	x	1	—	—	—	—	3 & 4	4



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	tify desired width/depth ratios, streambank conditions, channel substrate conditions, and large woody material characteristics.									
RIP-2	Conduct hydrologic studies and analysis, including appropriate stream flow monitoring of the channel to assess the potential of Peralta Canyon to support riparian habitat. A riparian monitoring plan for these actions has been developed.	x	x	1	2	20,000	2	1,000	3 & 4	1 & 2
RIP-3	Establish a program to monitor the magnitudes and durations of the flows through the 2.05 miles of Peralta Canyon on Federal land in the Monument using the following means: 3 alluvial water table wells (in the upper, middle, and lower portions); and 2 stream gauge stations (in the upper and lower portions).	x	x	1	—	—	See RIP-2	See RIP-2	3	2
RIP-4	Develop a 3-acre exclosure on Federal land alongside the Peralta Canyon channel to monitor vegetation supported by available water during the runoff season. Conduct a vegetation inventory along the Peralta Canyon stream channel within the exclosure and a comparable distance outside the exclosure.	x		1	1	30,000	0.5	5,000	3	1 & 2
RIP-5	Conduct prescribed fires for parts of the Peralta Canyon stream channel to reduce the cover of shrub species.	x	x	1	—		1	1,000	3	3
RIP-6	Prescribed fires may be followed by herbicide treatment of re-sprouting shrubs.	x	x	1	—	—	See RIP-5	See RIP-5	3	4
RIP-7	Areas currently lacking in grass and forb species will be seeded.	x	x	1	0.5	2,000	—	—	3	1
RIP-8	Pursue a more intense riparian restoration program if potential is shown. Cottonwood, willow, and other riparian species will be planted if riparian conditions develop. Riparian habitat will be expanded to the extent that potential is indicated.	x	x	1	—	—	***	***	3	4
RIP-9	Manage the entire riparian habitat within Peralta Canyon inside the Monument as a riparian area if riparian vegetation	x	x	1	—	—	***	***	3	4



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	tion becomes established in the stream channel, and the private inholdings are acquired. The BLM will then assess the area for properly functioning condition.									
RIP-10	As studies are being conducted, study areas alongside the Peralta Canyon stream channel will be designated as off limits to such recreational uses as hiking and horseback riding to avoid damage to riparian habitat.	x	x	1	—	1,000	—	—	3	1
RIP-11	If inholdings are not acquired, the BLM will pursue Cooperative Management Agreements with willing landowners to protect any riparian areas that develop on private land.	x	x	1	—	—	***	***	3	4
	<b>Social and Economic Conditions</b>									
SE-1	Comply with the principles of Environmental Justice. Consideration is given to the health and well-being of minority and low-income communities and avoidance of inequitable distribution of adverse impacts to these communities.	x	x	1	—	—	—	—	3	3
SE-2	Provide environmental education about the natural and cultural resources and natural processes of landscape formation for which the Monument was designated.	x	x	1	—	—	2	30,000	1 & 3	3
SE-3	Through agreements with the Pueblo de Cochiti, provide funding for employment in Monument operation and management.	x	x	1	—	—	See AIU-6 & RU-17	See AIU-6 & RU-17	1 & 3	3
	<b>Soil and Water Resources</b>									
SW-1a	Protect, maintain, or improve the quality of the soil, water, and air resources and watershed values associated with the public lands, including natural site productivity, air quality, and surface and ground water quality, quantity, and timing.	x	x	1	—	—	—	—	3 & 4	3
SW-1b	Prevent deterioration of soil, air quality, and watershed	x	x	1	—	—	—	—	3 & 4	3



DECISION OR ACTION		TERM		PRIORITY	ONE-TIME COSTS		RECURRING COSTS		STATUS	DURATION
#	PROGRAM	Short (1-5 years)	Long (6-20 years)	1-High 2-Medium 3-Low 4-Completed	Work Months	Other Costs	Work Months	Other Costs	1-Proclamation 2-Designation 3-Implementation 4-Regulation/ Policy	1-One time 2-Periodic 3-Ongoing 4-As Needed
	conditions where technically and economically feasible, and rehabilitate areas in which accelerated erosion and runoff have resulted in unacceptable resource conditions.									
SW-1c	Prevent or minimize the threat to public health and safety, damage to natural site characteristics, or economic losses due to floods, sedimentation, decreased water and air quality, or accelerated runoff and erosion.	x	x	1	—	—	5	100,000	3 & 4	3
SW-1d	Prevent impairment of soil productivity due to accelerated soil loss or physical or chemical degradation of the soil resource.	x	x	1	—	—	—	—	3 & 4	3
SW-1e	Ensure that BLM management actions and objectives are consistent with soil resource capabilities.	x	x	1	—	—	—	—	3	4
SW-1f	Maintain or improve surface and ground water quality consistent with existing and anticipated uses and applicable State and Federal water quality standards.	x	x	1	—	—	1	10,000	3 & 4	3
SW-1g	Minimize the harmful consequences of overland flow and surface runoff on or arising from BLM-administered lands.	x	x	1	—	—	—	—	3 & 4	3
SW-1h	Provide for the physical and legal availability of water to facilitate authorized uses of the public lands.	x	x	1	—	—	See SW-5	See SW-5	3	3
SW-2	Maintain water source inventories, participate in State water rights adjudications (none of which affect the Monument at this time), and evaluate watershed conditions in terms of erosion/sedimentation, water quality, and supply.	x	x	1	—	—	1	—	3 & 4	3
SW-3	Plan, implement, monitor, and maintain watershed rehabilitation projects.	x	x	1	—	—	0.5	—	3	4
SW-4	For closed roads and trails to be rehabilitated, implement appropriate protection measures (Best Management Practices) to minimize watershed impacts and/or restore natural conditions.	x	x	1	2	40,000	1	10,000	3	1 & 4
SW-5	Assess physical water availability and quality for visitor use, acquire water rights (if needed), and ensure continued compliance with the Safe Drinking Water Act.	x	x	1	See RU-16	See RU-16	See RU-16	See RU-16	3 & 4	1 & 3



DECISION OR ACTION		TERM		PRIORITY	ONE-TIME COSTS		RECURRING COSTS		STATUS	DURATION
#	PROGRAM	Short (1-5 years)	Long (6-20 years)		Work Months	Other Costs	Work Months	Other Costs		
	<b>Special Geologic Features</b>									
SGF-1	BLM's management goal for special geologic features is to protect these important, environmentally sensitive geologic resources in their natural condition (subject to ecological processes), while allowing recreation, and scientific research and collection.	x	x	1	—	—	—	—	1 & 3	3
SGF-2	If the 837 acres of non-Federal minerals within the Monument are developed, BLM's management goal will be to protect the special geologic features to the extent possible.	x	x	1	—	—	—	—	1 & 3	4
SGF-3	Develop appropriate interpretive materials (e.g., signs, brochures) to explain the special geologic features of the area, such as tents, faults, and flows.	x	x	1	—	—	See RU-9	See RU-9	3	3
SGF-4	Allow scientific collection and research only by accredited universities or other organizations under permit. Issue permits only in the areas determined to be the least susceptible to impacts, excluding those areas composed of the "tents." When proposals are submitted for scientific research and collection in the Planning Area, evaluate the proposals and permit applications, develop appropriate stipulations for geological resource protection, and conduct compliance inspections. If the inspections indicate that any study is unduly and unnecessarily degrading the natural landscape within the Planning Area, severely limit or eliminate study in affected areas.	x	x	1	—	—	***	***	3	4
SGF-5	Protect special geologic features on 167 acres of Federally owned Monument lands for visitor viewing and observation. Identified acquisitions, if completed, could increase this area to 2,284 acres.	x	x	1	—	—	1	2,000	1,2 & 3	3
	<b>Special Status Plants</b>									
SS-1a	Manage the public land to maintain, restore, improve, or enhance habitats which maintain or lead to recovery of Federally listed species populations and to preclude the	x	x	1	—	—	—	—	3 & 4	3



DECISION OR ACTION		TERM		PRIORITY	ONE-TIME COSTS		RECURRING COSTS		STATUS	DURATION
#	PROGRAM	Short (1-5 years)	Long (6-20 years)	1-High 2-Medium 3-Low 4-Completed	Work Months	Other Costs	Work Months	Other Costs	1-Proclamation 2-Designation 3-Implementation 4-Regulation/ Policy	1-One time 2-Periodic 3-Ongoing 4-As Needed
	need for listing proposed, candidate, and other special status species.									
SS-1b	The objective of the Special Status Plant Program is to continue to monitor and inventory special status species and their habitats to ensure that appropriate management, protections, and mitigations are developed and applied.	x	x	1	—	—	See WL-4a	See WL-4a	3 & 4	3
SS-2	No special status plant species have been identified within the Monument or Southwest Acquisition. Any plants located will be managed on a case-by-case basis. Consultation with the U.S. Fish and Wildlife Service for listed species will be carried out as required by the Endangered Species Act.	x	x	1	—	—	***	***	3	4
	<b>Threatened, Endangered, and Sensitive Wildlife Species</b>									
TE-1a	The goal of the Threatened, Endangered, and Sensitive Wildlife Program is compliance with the Endangered Species Act. The BLM manages the public land to maintain, restore, improve, or enhance habitats which maintain or lead to recovery of Federally listed species populations and to preclude the need for listing proposed, candidate, State protected, or sensitive species.	x	x	1	—	—	—	—	3 & 4	3
TE-1b	The objective of the Threatened, Endangered, and Sensitive Wildlife Program is to continue to monitor and inventory special status species and their habitats to ensure that appropriate management, protections, and mitigations are developed and applied.	x	x	1	—	—	See WL-4a	See WL-4a	3 & 4	3
TE-2	The Endangered Species Act requires special protection and management of Federally listed threatened and endangered (T&E), proposed, and candidate plant and animal species. The BLM implements the ESA through its National Special Status Species Policy contained in BLM Manual 6840.	x	x	1	—	—	—	—	3 & 4	3



DECISION OR ACTION		TERM		PRIORITY	ONE-TIME COSTS		RECURRING COSTS		STATUS	DURATION
#		Short (1-5 years)	Long (6-20 years)		Work Months	Other Costs	Work Months	Other Costs		
	<b>PROGRAM</b>			1-High 2-Medium 3-Low 4-Completed					1-Proclamation 2-Designation 3-Implementation 4-Regulation/ Policy	1-One time 2-Periodic 3-Ongoing 4-As Needed
TE-3	The National Special Status Species Policy directs the BLM to plan and implement programs to conserve T&E species, and to ensure that actions authorized, funded, or carried out do not jeopardize listed species or contribute to the need to list a species.	x	x	1	—		—	—	3 & 4	3
TE-4	The National Special Status Species Policy further charges BLM State Directors with the responsibility to give state-designated species the same level of protection provided for Federal candidate species.	x	x	1	—	—	—	—	3 & 4	3
TE-5a	Determine the distribution, abundance, reasons for the current status, and habitat needs for candidate (and sensitive) species occurring on land administered by the BLM, and evaluate the significance of BLM-administered lands or actions in maintaining those species.	x	x	1	—	—	See TE-6	See TE-6	3	3
TE-5b	For those species where BLM-administered lands or actions have a significant effect on their status, manage the habitat to conserve the species by the following means:	x	x	1	—	—	—	—	3	3
TE-5c	Include candidate (and sensitive) species as priority species in land use plans.	x	x	1	—	—	—	—	3	4
TE-5d	Develop and implement area-wide and/or site-specific management plans for candidate (and sensitive) species that include specific habitat and population management objectives designed for recovery, as well as the management strategies necessary to meet those objectives.	x	x	1	—	—	See TE-6	See TE-6	3	4
TE-5e	Ensure that BLM activities that affect the habitat of candidate (and sensitive) species are carried out in a manner consistent with the objectives for those species.	x	x	1	—	—	See TE-6	See TE-6	3	4
TE-5f	Monitor populations and habitats of candidate (and sensitive) species to determine whether management objectives are being met.	x	x	1	—	—	See TE-6	See TE-6	3	4
TE-6	The BLM has made a "No Affect" determination for the Monument for all the listed, proposed and candidate species, and critical habitat identified by the U.S. Fish and	x	x	1	—	—	—	—	3 & 4	1



DECISION OR ACTION		TERM		PRIORITY	ONE-TIME COSTS		RECURRING COSTS		STATUS	DURATION
#	PROGRAM	Short (1-5 years)	Long (6-20 years)	1-High 2-Medium 3-Low 4-Completed	Work Months	Other Costs	Work Months	Other Costs	1-Proclamation 2-Designation 3-Implementation 4-Regulation/ Policy	1-One time 2-Periodic 3-Ongoing 4-As Needed
	Wildlife Service as potentially occurring in Sandoval County.									
TE-7	The BLM has identified 13 sensitive species as potentially occurring or having suitable habitat within the Monument and Southwest Acquisition. Manage these species in accordance with the BLM National Special Status Species Policy if any are identified.	x	x	1	—	—	***	***	3 & 4	4
TE-8	Reevaluate the Monument for new special status species as the special status species list for Sandoval County is updated.	x	x	1	—	—	0.5	—	3 & 4	2
	<b>Vegetation and Woodlands Management</b>									
VW-1a	BLM Handbook H-1601 states that the agency's goals for vegetation are to: (1) "Identify desired future conditions for vegetative resources, including the desired mix of vegetative types, structural stages, and landscape and riparian functions, and provide for native plant, fish, and wildlife habitats. (2) Identify the actions and area-wide use restrictions needed to achieve desired vegetative conditions."	x	x	1	—	—	—	—	3 & 4	3
VW-2	The objectives of vegetation treatments are as follows:									
VW-2a	Reduce the risk of hazardous vegetative fuels to human life and property.	x	x	1	—	—	See FM-1	See FM-1	3 & 4	3
VW-2b	Reduce the risk or cost of fire suppression in areas of hazardous fuels buildup.	x	x	1	—	—	See FM-1	See FM-1	3 & 4	3
VW-2c	Achieve other resource objectives (e.g., improve native plant and wildlife habitat).	x	x	1	—	—	0.5	10,000	3	3
VW-2d	Treat lands that are in Fire Regime Condition (FRC) Classes II and III.	x	x	1	—	—	See FM-1	See FM-1	3 & 4	3
VW-2e	Maintain lands that are in FRC Class I.				—	—	See FM-1	See FM-1	3 & 4	4
VW-3	Where needed, vegetation and woodland treatments will consist of prescribed fire, mechanical methods, physical removal of excess vegetation, and chemical methods.	x	x	1	—	—	See FM-1	See FM-1	3	3



DECISION OR ACTION		TERM		PRIORITY	ONE-TIME COSTS		RECURRING COSTS		STATUS	DURATION
#	PROGRAM	Short (1-5 years)	Long (6-20 years)		Work Months	Other Costs	Work Months	Other Costs		
VW-4	Follow Best Management Practices for vegetation treatment methods. Some treatments may need to be combined with others for best results, and some areas may need to be treated repeatedly to achieve the desired results.	x	x	1	—	—	1	6,000	3	1-One time 2-Periodic 3-Ongoing 4-As Needed
VW-5	Comply with the NM Standards for Public Land Health in establishing woodlands and vegetative treatments as management moves toward desired future conditions.	x	x	1	—	—	—	—	3 & 4	3
	<b>Visual Resources</b>									
VR-1a	Manage Federal lands in a manner that protects scenic (visual) values.	x	x	1	—	—	—	—	3 & 4	3
VR-1b	For VRM Class II lands, retain the existing character of the landscape, and prevent changes from use authorizations and management actions that would attract attention. Changes in the landscape should repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.	x	x	1	—	—	—	—	3	3
VR-1c	For VRM Class III lands, allow activities and structures that attract attention but that do not dominate the view of the casual observer. Changes should borrow from the basic elements found in the natural features of the surrounding characteristic landscape.	x	x	1	—	—	—	—	3	3
VR-2	Use objectives for VRM Classes II and III to guide management actions on the public lands within the Planning Area.	x	x	1	—	—	—	—	2, 3 & 4	3
VR-3	In areas of intensive recreational use and along BLM Road 1011 through the Monument, VRM Class III has been assigned to the 1,202 acres that encompass the immediate foreground surrounding the developed facilities. On the Class III lands, only activities and structures that would attract attention but not dominate the view of the casual observer will be allowed. Any changes would borrow from the basic elements found in the natural features of the surrounding characteristic landscape.	x	x	1	—	—	—	—	2, 3 & 4	3



DECISION OR ACTION		TERM		PRIORITY	ONE-TIME COSTS		RECURRING COSTS		STATUS	DURATION
#	PROGRAM	Short (1-5 years)	Long (6-20 years)		Work Months	Other Costs	Work Months	Other Costs		
VR-4	VRM Class II has been assigned to the remaining 3,887 acres of public lands, where the intent will be to retain the existing character of the landscape by keeping implementation actions from attracting attention.	x	x	1	—	—	—	—	1-Proclamation 2-Designation 3-Implementation 4-Regulation/ Policy 2, 3 & 4	1-One time 2-Periodic 3-Ongoing 4-As Needed 3
VR-5	Use a contrast rating process to determine the level of contrast acceptable under the assigned VRM class objectives. The contrasts will be measured by comparing the proposed project's basic design elements of form, line, color, and texture with those same elements found in the landform, water, vegetative, and structural features of the surrounding landscape as observed from key observation points. Design principles, techniques, and mitigation measures will be applied to minimize visual impacts.	x	x	1	4	100,000	—	—	3 & 4	1
VR-6	Inventory acquired lands and place in VRM Class II or III based on the extent of cultural modifications to the landscape, the need to implement future management actions or install facilities to accommodate visitor services, and the need for resource protection and rehabilitation.	x	x	1	***	***	—	—	3	4
	<b>Wilderness and Wilderness Study Areas</b>									
	There are no wilderness study areas or designated wilderness within the Planning Area. Therefore goals and objectives were not established, and there are no decisions.									
	<b>Wildlife Habitat Management</b>									
WL-1	The management goals for the Wildlife Habitat Management Program listed below were carried forward from the Final Protection Plan for Tent Rocks ACEC. The BLM will manage the Planning Area in the following ways to maintain and improve healthy habitats for wildlife:	x	x	1	—	—	—	—	3	3



DECISION OR ACTION		TERM		PRIORITY	ONE-TIME COSTS		RECURRING COSTS		STATUS	DURATION
#	PROGRAM	Short (1-5 years)	Long (6-20 years)		Work Months	Other Costs	Work Months	Other Costs		
WL-1a	Promote awareness of wildlife values.	x	x	1	—	—	See RU-9	See RU-9	3	3
WL-1b	Protect habitat for non-game birds and improve big-game winter habitat.	x	x	1	—	—	—	—	3	3
WL-1c	Provide water development and rehabilitate grassland parks.	x	x	1	—	—	See LG-3 & LG-7	See LG-3 & LG-7	3	3
WL-2	Nothing in the Proclamation enlarges or diminishes the jurisdiction of the State of New Mexico over fish and wildlife management.	x	x	1	—	—	—	—	1	3
WL-3	Executive Order 13186 directs Federal agencies to "... promote the conservation of migratory bird populations ..." and to "... support the conservation intent of the migratory bird conventions by integrating bird conservation principles, measures, and practices into agency activities and by avoiding or minimizing, to the extent practicable, adverse impacts on migratory bird resources when conducting agency actions." It is therefore important that the BLM provide adequate habitat for these bird species.	x	x	1	—	—	0.5	5,000	3 & 4	3
WL-4	Implement the following actions to maintain and enhance healthy habitats for wildlife populations within the boundaries of the Planning Area:									
WL-4a	Conduct a complete biotic survey of the area to determine the plant and animal species present, including vascular and non-vascular plants; soil macro- and micro-invertebrates for each soil type; arthropods, mollusks, and crustaceans; and miscellaneous other invertebrates as they become known.	x	x	1	1	100,000	—	—	3	1
WL-4b	Conduct breeding bird surveys on a regular and repeating schedule. If populations decline, develop a mitigation plan in coordination with the U.S. Fish and Wildlife Ser-	x	x	1	—	—	0.5	1,200	3	2



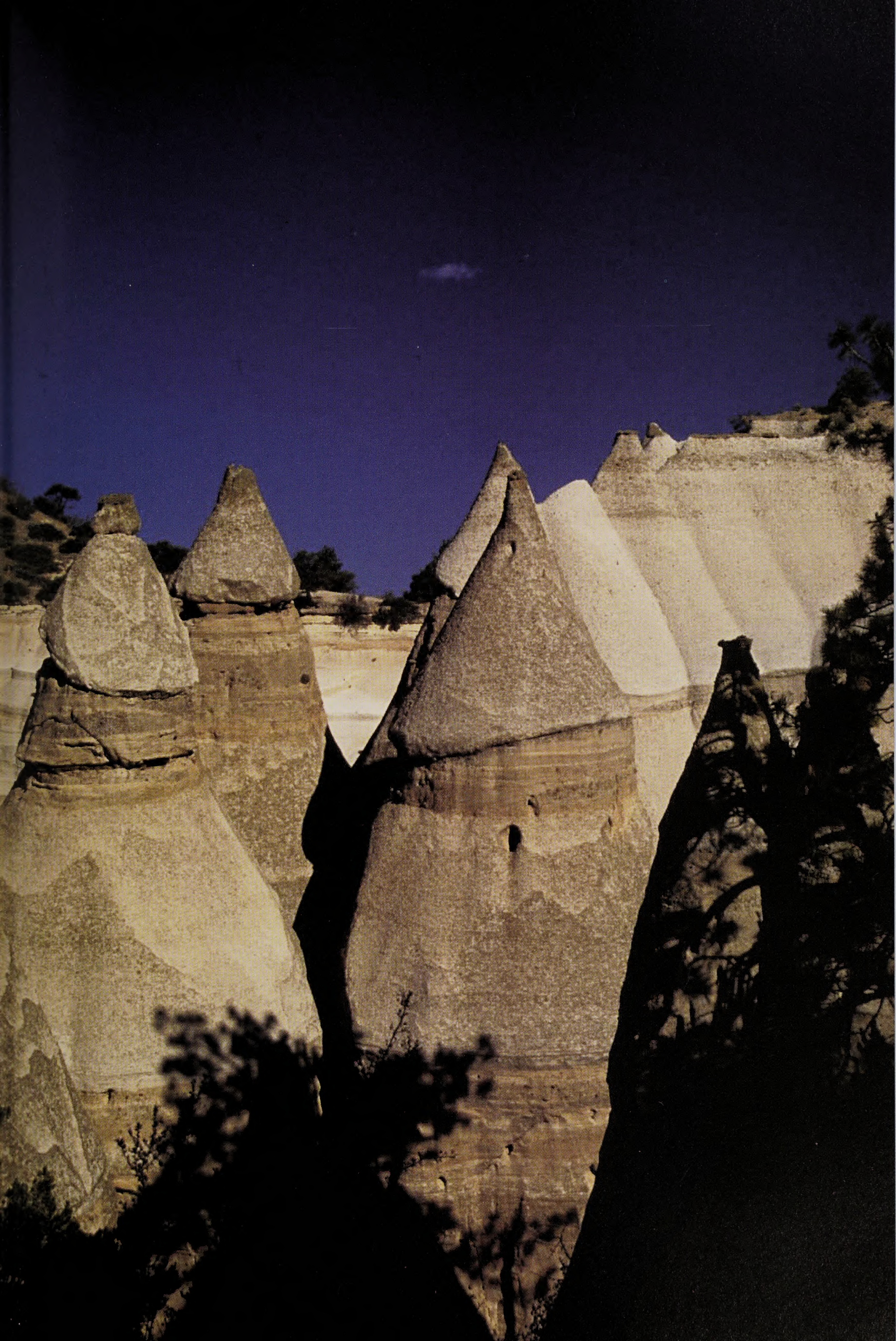
DECISION OR ACTION		TERM		PRIORITY	ONE-TIME COSTS		RECURRING COSTS		STATUS	DURATION
#	PROGRAM	Short (1-5 years)	Long (6-20 years)	1-High 2-Medium 3-Low 4-Completed	Work Months	Other Costs	Work Months	Other Costs	1-Proclamation 2-Designation 3-Implementation 4-Regulation/ Policy	1-One time 2-Periodic 3-Ongoing 4-As Needed
	vice and the New Mexico Department of Game and Fish (NMDG&F).									
WL-4c	Survey the stream bottom of Peralta Canyon every 3 years for evidence of riparian and wetland development. If such development occurs, pursue a more intensive riparian restoration program with specific actions to protect and promote the development (based on best science). This will also be applied to any springs or seeps discovered.	x	x	1	—	—	See RIP-3	See RIP-3	3	2
WL-4d	Fence the south and west boundaries of the Planning Area and any acquired lands to prevent damage to big-game winter habitat from trespass livestock.	x	x	1	1	45,000	—	—	3	1
WL-4e	Coordinate wildlife management activities with the NMDG&F (including but not limited to game species management and special status species management).	x	x	1	—	—	0.5	10,000	3	3

\*\*\* No basis for estimate, but costs are likely.















## CHAPTER 5

### PLAN EVALUATION/ADAPTIVE MANAGEMENT

#### PLAN EVALUATION

Periodic evaluations of the Kasha-Katuwe Tent Rocks RMP will occur at a minimum of every five years. The purpose of these evaluations is to determine whether:

- Decisions remain relevant to current issues.
- Decisions are effective in achieving or progressing towards desired outcomes.
- Any decisions need to be revised.
- Any decisions need to be dropped from further consideration.
- Any areas require new decisions.

BLM's Land Use Planning Handbook provides recommendations for the process for completing plan evaluations and guidance on determining when a decision should be modified, dropped, or added. The first evaluation should review both implementation of the Plan and the effectiveness of monitoring, to the extent that they are available.

#### ADAPTIVE MANAGEMENT

Adaptive management is defined by the Office of Environmental Policy and Compliance as: "...a system of management practices based on clearly identified outcomes, monitoring to determine if management actions are meeting outcomes, and if not, facilitating management changes that will best ensure that outcomes are met or to reevaluate the outcomes." The monitoring and plan evaluation efforts associated with this RMP will contribute to the continual assessment of management objectives and actions in the Kasha-Katuwe Tent Rocks Planning Area. The BLM will continue to work closely with the Pueblo de Cochiti to ensure adequate communication and cooperation on resource management and to share information on resource conditions. Adaptive management is especially important at Kasha-Katuwe Tent Rocks National Monument, where recreation activities and visitor use are increasing, requiring management flexibility over the life of the RMP.























## APPENDIX A

### Presidential Documents

7343 Federal Register / Vol. 66, No. 14 / Monday, January 22, 2001

#### Proclamation 7394 of January 17, 2001

#### Establishment of the Kasha-Katuwe Tent Rocks National Monument By the President of the United States of America, A Proclamation

Located on the Pajarito Plateau in north central New Mexico, the Kasha-Katuwe Tent Rocks National Monument is a remarkable outdoor laboratory, offering an opportunity to observe, study, and experience the geologic processes that shape natural landscapes, as well as other cultural and biological objects of interest. The area is rich in pumice, ash, and tuff deposits, the light-colored, cone-shaped tent rock formations that are the products of explosive volcanic eruptions that occurred between 6 and 7 million years ago. Small canyons lead inward from cliff faces, and over time, wind and water have scooped openings of all shapes and sizes in the rocks and have contoured the ends of the ravines and canyons into smooth semicircles. In these canyons, erosion-resistant caprocks protect the softer tents below. While the formations are uniform in shape, they vary in height from a few feet to 90 feet, and the layering of volcanic material intersperses bands of grey with beige colored rock.

Amid the formations and in contrast to the muted colors of the rocks of the monument, vibrant green leaves and red bark of manzanita, a shrubby species from the Sierra Madre of Mexico, cling to the cracks and crevices of the cliff faces. Red-tailed hawks, kestrels, violet-green swallows, and Western bluebirds soar above the canyons and use the pinion and ponderosa covered terrain near the cliffs.

The complex landscape and spectacular geologic scenery of the Kasha-Katuwe Tent Rocks National Monument has been a focal point for visitors for centuries. Human settlement is believed to have begun in the monument as a series of campsites during the Archaic period, from approximately 5500 B.C. During the fifteenth century, several large ancestral pueblos were established in the area. Their descendants, the Pueblo de Cochiti, still inhabit the surrounding area. Although the Spanish explorer Don Juan de Oñate reached the Pajarito Plateau in 1598, it was not until the late eighteenth century that families began to claim land grants around Tent

Rocks from the Spanish Crown. Remnants of human history are scattered throughout the monument.

Section 2 of the Act of June 8, 1906 (34 Stat. 225, 16 U.S.C. 431), authorizes the President, in his discretion, to declare by public proclamation historic landmarks, historic and prehistoric structures, and other objects of historic or scientific interest that are situated upon the lands owned or controlled by the Government of the United States to be national monuments, and to reserve as a part thereof parcels of land, the limits of which in all cases shall be confined to the smallest area compatible with the proper care and management of the objects to be protected.

WHEREAS it appears that it would be in the public interest to reserve such lands as a national monument to be known as the Kasha-Katuwe Tent Rocks National Monument: NOW, THEREFORE, I, WILLIAM J. CLINTON, President of the United States of America, by the authority vested in me by section 2 of the Act of June 8, 1906 (34 Stat. 225, 16 U.S.C. 431), do proclaim that there are hereby set apart and reserved as the Kasha-Katuwe Tent Rocks National Monument, for the purpose of protecting the objects identified above, all lands and interests in lands owned or controlled by the United States within the boundaries of the area described on the map entitled "Kasha-Katuwe Tent Rocks National Monument" attached to and forming a part of this proclamation. The Federal land and interests in land reserved consist of approximately 4,148 acres, which is the smallest area compatible with the proper care and management of the objects to be protected.

All Federal lands and interests in lands within the boundaries of this monument are hereby appropriated and withdrawn from all forms of entry, location, selection, sale, or leasing or other disposition under the public land laws, including but not limited to withdrawal from location, entry, and patent under the mining laws, and from disposition under all laws



relating to mineral and geothermal leasing, other than by exchange that furthers the protective purposes of the monument.

For the purpose of protecting the objects identified above, the Secretary shall prohibit all motorized and mechanized vehicle use off road, except for emergency or authorized administrative purposes.

Lands and interests in lands within the proposed monument not owned by the United States shall be reserved as a part of the monument upon acquisition of title thereto by the United States. The Secretary of the Interior shall manage the monument through the Bureau of Land Management, pursuant to applicable legal authorities and in close cooperation with the Pueblo de Cochiti, to implement the purposes of this proclamation.

The Secretary of the Interior shall prepare, within 3 years of this date, a management plan for this monument, and shall promulgate such regulations for its management as he deems appropriate. The management plan shall include appropriate transportation planning that addresses the actions, including road closures or travel restrictions, necessary to protect the objects identified in this proclamation and to further the purposes of the American Indian Religious Freedom Act of August 11, 1978 (42 U.S.C. 1996).

Only a very small amount of livestock grazing occurs inside the monument. The Secretary of the Interior shall retire the portion of the grazing allotments within the monument, pursuant to applicable law, unless the Secretary specifically finds that livestock grazing will advance the purposes of the proclamation.

The establishment of this monument is subject to valid existing rights.

Nothing in this proclamation shall be deemed to enlarge or diminish the jurisdiction of the State of New Mexico with respect to fish and wildlife management.

This proclamation does not reserve water as a matter of Federal law. Nothing in this reservation shall be construed as a relinquishment or reduction of any water use or rights reserved or appropriated by the United States on or before the date of this proclamation. The Secretary shall work with appropriate State authorities to ensure that any water resources needed for monument purposes are available. Nothing in this proclamation shall be deemed to revoke any existing withdrawal, reservation, or appropriation; however, the national monument shall be the dominant reservation.

Warning is hereby given to all unauthorized persons not to appropriate, injure, destroy, or remove any feature of this monument and not to locate or settle upon any of the lands thereof.

IN WITNESS WHEREOF, I have hereunto set my hand this seventeenth day of January, in the year of our Lord two thousand one, and of the Independence of the United States of America the two hundred and twenty-fifth.

Signed by President William J. Clinton











## APPENDIX B

## NOXIOUS WEED PREVENTION IN THE ALBUQUERQUE FIELD OFFICE



## United States Department of the Interior

## BUREAU OF LAND MANAGEMENT

Albuquerque Field Office

435 Montano Rd. N.E.

Albuquerque, New Mexico 87107-4935

www.nm.blm.gov



IN REPLY REFER TO:  
9220 (010)

May 14, 1999

Instruction Memorandum NM-010-99-01

Expires: 9/30/2000

To: All Employees

From: Field Manager (010)

Subject: Noxious Weed Prevention Schedule for the Albuquerque Field Office

Noxious weeds are spreading nationally at 2,300 acres/day on BLM lands. If cooperative weed management efforts are not dramatically increased approximately 19 million acres bureauwide will be infested with these invasive plants by the year 2000. The serious threat from noxious weeds warrants inclusion of noxious weeds as one of the mandatory items in BLM's National Environmental Policy Act Handbook, H-1790-1. Within the Albuquerque Field Office we have known populations of Russian knapweed, musk thistle, bull thistle, Canada thistle, Scotch thistle, whitetop, and Halogeton.

The Partners Against Weeds (PAWS) action plan for BLM (January 1996) established some general guidelines to be implemented to help prevent the introduction or spread of noxious weeds. These preventative measures should be applied to BLM actions such as range improvements, fire rehabilitation, and road maintenance, as well as BLM authorized actions including rights-of-way, oil and gas activities, grazing permits, and recreation permits.

The goals and strategies identified in PAWS will be implemented as needed for noxious weed management for the Albuquerque Field Office. A summary of portions of the PAWS action plan which need to be implemented immediately are as follows:

## Goal 1—Prevention and Detection

The Field Office will delineate high priority areas for prevention of noxious weed infestation. Review and modify where necessary, all activities authorized or conducted on BLM land for their potential to spread weeds. This includes evaluating the potential for noxious weed invasion in the effects analysis of each NEPA document. Newly introduced weed species will be identified and documented.



## Goal 2—Education and Awareness

The Field Office will conduct workshops for all field personnel to update their knowledge of noxious weeds, to include identification and the problems noxious weeds can cause. The Field Office will continue to work to establish county weed associations in developing and implementing outreach plans.

## Goal 3—Inventory

The Field Office will monitor all known populations of noxious weeds and update the inventory as needed on a yearly basis.

## Goal 4—Planning

Include provisions for noxious weed management in all BLM-funded or authorized actions. See Weed Prevention Schedule and Appendix 4 (attached) from the PAWS for specific actions to be considered.

## Goal 5—Integrated Weed Management (IWM)

The Field Office will determine the best management options using a combination of the four general categories identified for weed management: Cultural, Physical Control, Biological Control or Herbicides. See Appendix 5 from PAWS for specific guidelines.

## Goal 6—Coordination

The Field Office will continue and expand cooperation with other federal agencies, state and county governments, organizations and private landowners in the fight against weeds.

## Goal 7—Monitoring, Evaluation, Research and Technology Transfer

The Field Office will continue to work with the Cooperative Extension Service and others on research for control methods for Noxious Weeds. Monitoring programs will be established to determine if we are meeting our management objectives with our weed management programs.

Signed by:

Edwin J. Singleton  
Field Manager

Authenticated by:

Jeanne Holtby  
Staff Asst.

1 Attachment:

1—AFO Weed Prevention Schedule (3 pp)



## ALBUQUERQUE FIELD OFFICE WEED PREVENTION SCHEDULE

PREVENTION ACTIVITY	WHEN	STAFF
Require that all road construction and maintenance equipment be free of mud, dirt and plant parts before moving from infested areas. Gravel and fill pits should be inspected to ensure they are weed free.	All Year	Lands and Minerals & Engineering Teams
Re-establish vegetation on all areas of soil disturbance. Proper dates and the seeding mix to be used will be provided by the Albuquerque Field Office. Only certified weed free seed and mulch will be used in the re-establishment of vegetation. All reseeded sites should be monitored and permit holder notified if spot reseeding is required.	All Year	Lands and Minerals & Watershed & Engineering Teams
All Range, Watershed, and Wildlife Projects and all Land Use Permits should include a stipulation requiring monitoring for and treatment of noxious weed infestations that occur after a permit is issued. Method of treatment for any infestations must be approved by the Albuquerque Field Office.	All Year	Lands and Minerals & Watershed Teams
Environmental analysis for all Range, Watershed, Wildlife, and Recreation Projects and all Land Use Permits will include weed-risk considerations.	All Year	Lands and Minerals & Watershed Teams & Recreation
Require that supplemental feed be certified weed free. Any permit allowing livestock on the site should have a stipulation that weed free feed be used. Require that all pack and saddle stock in Wilderness Study Areas, Areas of Critical Environmental Concern, Recreation Areas or sensitive areas use only certified weed free feed. Encourage the use of weed free feed in all areas.	All Year	Lands and Minerals & Watershed Teams & Recreation
All Special Recreation Use Permits should include a stipulation requiring on-site weed control and minimization of spread to other areas. Method of treatment for any infestations must be approved by the Albuquerque Field Office.	All Year	Recreation
Sign trailheads of pack and saddle stock trails for weed awareness and weed prevention techniques.	All Year	Recreation
In allotments with infestations and weed free areas, control timing of animal movement to prevent movement from infested sites to non-infested after seed set. Avoid grazing any vegetative treatment site (brush control, sagebrush shaving, reseeded sites or prescribed burn sites) until vegetation is well established.	All Year	Watershed Team
Include weed prevention and treatment in all mining plans of operation and reclamation plans. Retain bonds for weed control until the site is	All Year	Lands and Minerals Team



PREVENTION ACTIVITY	WHEN	STAFF
returned to vegetative conditions matching the surrounding area. Method of treatment for any infestations must be approved by the Albuquerque Field Office.		
Require that all archeological site excavations greater than 1/4 acre be reclaimed. Dates of seeding and seed mix to be used will be provided by the Albuquerque Field Office. Seed must be certified weed free.	All Year	Cultural Team
Will establish weed management areas and work to expand the cooperation with other federal agencies, state and county governments, organizations and private landowners in the fight against weeds.	All Year	Watershed Team & Weed Coordinator
Distribute public information/brochures. Weed identification training for field going employees and managers. Participate in state and local workshops that deal with noxious weed management.	All Year	Watershed Team & Weed Coordinator & Public Affairs

### NOXIOUS WEED STIPULATIONS FOR ALL PERMITS, EAs, & EISs

**Noxious weed control Standard Operating Procedures** found in Instruction Memorandum NM-010-99-01 (Weed Prevention Schedule for Albuquerque Field Office) will be followed.

- Ensure equipment involved in land disturbing actions be clean of noxious weed seeds or propagative parts prior to entry on site. When working in areas with noxious weeds, equipment should be cleaned prior to moving off site.
- Survey and inventory proposed work areas for noxious weeds; take reasonable measures to avoid spread of noxious weeds found (i.e., cleaning equipment with pressure washers, stockpiling overburden material for later treatment, avoiding driving through weed patches). The following noxious weeds have been identified as occurring on lands within the boundaries of the Albuquerque Field Office (AFO).

- 1) Russian knapweed (*Centaurea repens*)
- 2) musk thistle (*Carduus nutans*)
- 3) bull thistle (*Cirsium vulgare*)
- 4) Canada thistle (*Cirsium arvense*)
- 5) Scotch thistle (*Onopordum acanthium*)
- 6) hoary cress (*Cardaria draba*)
- 7) perennial pepperweed (*Lepidium latifolium*)
- 8) Halogeton (*Halogeton glomeratus*)
- 9) spotted knapweed (*Centaurea maculosa*)
- 10) Dalmation toadflax (*Linaria genistifolia*)
- 11) yellow toadflax (*Linaria vulgaris*)
- 12) camelthorn (*Alhagi pseudalhagi*)
- 13) yellow starthistle (*Centaurea solstitialis*)
- 14) saltcedar (*Tamarix spp.*)



15) diffuse knapweed (*Centaurea diffusa*)

- Use only certified weed free erosion control and re-vegetation materials (e.g., mulch, seed, natural fiber mats).
- If fill dirt or gravel will be required, the source needs to be noxious weed free.
- The site should be monitored for the life of the project for the presence of noxious weeds (includes maintenance & construction activities). If weeds are found, the AFO will be notified and the AFO will determine the best method for the control of the particular weed species.
- Reclamation and revegetation of the work site will use species specified by the AFO. All seed shall be certified weed free. The area will be monitored to determine the success of the revegetation, and revegetation will continue until successful.















## APPENDIX C

### BEST MANAGEMENT PRACTICES FOR USE WITH VEGETATION TREATMENT METHODS

Resource Element	Best Management Practices by Treatment Method			Biological
	Prescribed Fire	Mechanical	Chemical	
Guidance Documents	BLM H-9214-1 Handbook, Prescribed Fire Management 2000	BLM 1112 Manual (Safety)	BLM H-9011-1 and H-9015 Handbooks	BLM 1112, 4100 and 9014 Manuals
General	Prepare Fire Management Plan. Use trained personnel with adequate equipment.	Ensure that power cutting tools have approved spark arresters. Wash vehicles and equipment before leaving weed infested areas to avoid infecting weed-free areas. Minimize soil disturbance which may encourage new weeds to develop.	Prepare spill contingency plan in advance of treatment. Select chemical that is least dangerous to environment while providing the desired results. Keep records of each application, including the active ingredient, formulation, application rate, date, time, and application.	Use only biological control agents that have been tested and approved to ensure they are host-specific. Manage the intensity and duration of grazing.
Land Use	Carefully plan fires in wildland-urban interface to avoid loss of property. Notify nearby residents and landowners who could be affected by smoke intrusions or other fire effects.		Consider surrounding land use before aerial spraying. Comply with herbicide-free buffer zones to ensure that no drift will affect adjoining landowners.	
Air Quality See BLM 7000 Manual	Evaluate weather conditions, including wind speed and atmospheric stability, to predict effects of burn and impacts from smoke. Coordinate burn activities with New Mexico Environment Department. Burn when weather conditions are good for rapid smoke dispersion. Maintain safety buffer between burn area and facilities.	Minimize generation of dust and exhaust.	Consider effects of wind, humidity, temperature inversions, and rainfall on herbicide effectiveness and risks.	
Geology, Minerals, Oil & Gas		Minimize area of surface disturbance.		
Soils	Minimize broadcast burning on highly erodible soils. Re-seed if needed following treatment to encourage revegetation and minimize erosion. Minimize soil heating by pre-treatment of fuels where practical.	Implement erosion control measures where heavy equipment is used. Limit heavy equipment use on slopes greater than 30 percent. Conduct activities on dry or frozen soil to minimize soil compaction. Avoid damage to biological crusts.	Avoid treating areas in which herbicide runoff is likely. Consider soil mobility.	



Resource Element	Best Management Practices by Treatment Method			
	Prescribed Fire	Mechanical	Chemical	Biological
Water Resources  See BLM 7000 Manual & Memorandum of Understanding with New Mexico Environment Department	Maintain minimum buffer of 25-50 feet between burn area and water bodies. Minimize burning on hillslopes with high erosion potential and consider revegetation to mitigate. Prevent degradation of groundwater quality whenever practicable, even when Water Quality Control Commission (WQCC) standards allow for further degradation.  Develop site-specific BMPs for actions that degrade groundwater quality through nonpoint source pollution, for groundwater with total dissolved solids (TDS) <10,000 mg/l.	Maintain minimum buffer of 25-50 feet between burn area and water bodies. Reseed skid trails and roads closed after operations. Install erosion-control structures on roads used. Prevent degradation of groundwater quality whenever practicable, even when WQCC standards allow for further degradation.  Develop site-specific BMPs for actions that degrade groundwater quality through nonpoint source pollution, for groundwater with TDS <10,000 mg/l.	Consider climate, soil type, slope, and vegetation types in determining the risk of herbicide to water resources. Follow label instructions, especially near water bodies. Prevent degradation of groundwater quality whenever practicable, even when WQCC standards allow for further degradation.  Develop site-specific BMPs for actions that degrade groundwater quality through nonpoint source pollution, for groundwater with TDS <10,000 mg/l.  Evaluate site-specific potential for groundwater contamination with the Environmental Protection Agency rating system DRASTIC.	Avoid using livestock near residential or domestic water sources. Use grazing plans and systems to improve public land health. Prevent degradation of groundwater quality whenever practicable, even when WQCC standards allow for further degradation.  Develop site-specific BMPs for actions that degrade groundwater quality through nonpoint source pollution, for groundwater with TDS <10,000 mg/l.
Streams & Wetlands	Maintain minimum buffer of 25-50 feet between burn area and water bodies. Minimize burning on hillslopes with high erosion potential and consider revegetation to mitigate.	Maintain minimum buffer of 25-50 feet between burn area and water bodies.	Apply buffer zones of 100 feet for aerial application, 25 feet for ground application, and 10 feet for hand application.  Follow label instructions for control of saltcedar.	Avoid using livestock near residential or domestic water sources.
Vegetation  See BLM H-4410-1, H-5000 & H-9015 Handbooks	Conduct burn prescriptions to minimize residual damage to desirable trees.  Mitigate soil erosion by constructing erosion control structures on any control lines used.	Minimize disturbance to native vegetation by keeping equipment on existing roads and trails.  Reseed skid trails and roads to be closed after operations.  Install erosion control structures on roads used.	Avoid damage to non-target plants by using selective herbicides or selective equipment.  Reduce drift hazard to non-target species.  Minimize the use of broadcast foliar applications to reduce the creation of large areas of browned vegetation.	Use grazing animals at times most likely to damage invasive species.  Exclude livestock from revegetated areas for at least two growing seasons.
Fish  See BLM 6500 & 6780 Manuals	Maintain a vegetated buffer near fish-bearing streams to minimize soil erosion and soil runoff into streams.	Avoid treatments adjacent to fish-bearing waters.  Refuel and service equipment away from water bodies.  Maintain vegetated buffer between treatment area and water body.	Avoid treatments near fish-bearing streams during periods when fish are in life stages most sensitive to the herbicide used.  Use appropriate buffer zones based on label instructions and risk.	Limit access of grazing animals to streams and other water bodies to minimize sediments entering water and potential for damage to fish habitat.



Resource Element	Best Management Practices by Treatment Method			
	Prescribed Fire	Mechanical	Chemical	Biological
Wildlife See BLM 6500 & 6780 Manuals	Avoid treatments during nesting and other critical periods for birds and other wildlife.	Retain wildlife trees and other unique habitat features where practical.  Vegetation management strategies should be consistent with historical succession and disturbance regimes.  Fuels treatments should consider habitat needs of migratory and non-migratory populations.  Avoid treatments during nesting and other critical periods for birds and other wildlife.	Use herbicides of low toxicity to wildlife.  Avoid treatments during nesting and other critical periods for birds and other wildlife.	
Threatened & Endangered (T&E) Species See BLM 6840 Manual	Avoid direct impacts to listed species if project may impact listed species, unless studies show that species will benefit from fire.  Survey for T&E species and consult with U.S. Fish and Wildlife Service (FWS) as needed if project may impact listed species.  See site-specific conservation measures from Biological Evaluation.	Avoid use of ground disturbing equipment near T&E species.  Survey for T&E species and consult with FWS as needed if project may impact listed species.  See site-specific conservation measures from Biological Evaluation.	Survey for T&E species and consult with FWS as needed if project may impact listed species.  See site-specific conservation measures from Biological Evaluation.	
Wild Free-Roaming Horses & Burros	Do not burn extensive, contiguous areas of the Herd Management Area in the same year.  Start prescribed fires in such a way as to decrease the likelihood of horses running through fences.  Limit burning during the peak foaling period from March 1 through June 30.		Avoid using herbicides in areas actively grazed by wild horses and burros.	
Livestock See BLM H-4120-1 Handbook	Notify permittees of livestock feeding restrictions in treated areas, if needed.  Provide alternative forage sites for livestock, if use areas burn.	Notify permittees of livestock feeding restrictions in treated areas, if needed.  Provide alternative forage sites for livestock, if needed.	Notify permittees of livestock feeding restrictions in treated areas, if needed.  Provide alternative forage sites for livestock, if needed.	



Resource Element	Best Management Practices by Treatment Method			
	Prescribed Fire	Mechanical	Chemical	Biological
Cultural Resources & Native American Religious Concerns  See NM BLM Protocol with State Historic Preservation Officer (SHPO) and BLM 8100 & 8160 Manuals	Evaluate potential impacts of proposed treatment.  Conduct cultural resource inventories to identify sites at risk from treatment.  Develop avoidance measures and project-specific treatment measures to protect sites by reducing fuel loads in the vicinity of at-risk sites.  Consult with SHPO and tribes per NM Statewide Protocol Agreement.  Monitor effectiveness of site protection measures (Appendix A.5, Monitoring and Adaptive Management).	Evaluate potential impacts of proposed treatment.  Conduct cultural resource inventories to identify sites at risk from treatment.  Develop avoidance measures and project-specific treatment measures to protect sites by reducing fuel loads in the vicinity of at-risk sites.  Consult with SHPO and tribes per NM Statewide Protocol Agreement.  Monitor effectiveness of site protection measures.	Evaluate potential impacts of proposed treatment.  If application methods involve ground-disturbing activities, conduct cultural resource inventories as appropriate, and implement avoidance measures.  Consult with SHPO and tribes per NM Statewide Protocol Agreement.  Monitor effectiveness of site protection measures.	Evaluate potential impacts of proposed treatment.  If application methods involve ground-disturbing activities, conduct cultural resource inventories as appropriate, and implement avoidance measures.  Consult with SHPO and tribes per NM Statewide Protocol Agreement.  Monitor effectiveness of site protection measures.
Visual Resources  See BLM 8400 Manual & H-8410-1 Handbook	Minimize or avoid prescribed burning under conditions that could result in smoke impacting Prevention of Significant Deterioration (PSD) Class I areas. Maintain natural vegetated buffer between burn areas and public high use areas. Revegetate treated sites if needed. Use existing roads and minimize fireline construction.	Minimize dust drift, especially near recreational or other public use areas. Minimize earthwork and locate away from prominent topographic features. Revegetate treated sites if needed.	Minimize the use of broadcast foliar applications to reduce the creation of large areas of browned vegetation. Minimize herbicide drift.	
Wilderness Areas  See BLM H-8550-1, 8560-1 Handbooks, 8351, 8560 Manuals, and specific instructions in Fire Mgt. Unit descriptions & Appendix F of Resource Advisor Guide	Minimize or avoid soil-disturbing activities during fire suppression or prescribed fire activities.  Revegetate sites with native species if there is no reasonable expectation of natural regeneration.	Use least intrusive methods possible to achieve objectives, and use non-motorized equipment where possible.	Revegetate sites with native species unless there is no reasonable expectation of natural regeneration.  Use hand treatments of herbicides only when weeds are spreading within the wilderness or threaten lands outside the wilderness.	Use least intrusive methods possible to achieve objectives, and use non-motorized equipment where possible.



Resource Element	Best Management Practices by Treatment Method		
	Prescribed Fire	Mechanical	Chemical
Recreation See BLM H-1601-1 Handbook	Control public access to potential burn areas.	Control public access until potential treatment hazards no longer exist.	Control public access until potential treatment hazards no longer exist. Post signs noting exclusion areas and duration of exclusion.
Rights-of-Way	Avoid or minimize prescribed burning under powerlines.		
Health & Safety	Use some form of pre-treatment, such as mechanical or manual treatment, in areas where fire cannot be safely introduced due to hazardous build-up. Always use appropriate safety equipment and personal protective equipment (PPE). Notify nearby residents who could be affected by smoke.	Always use appropriate safety equipment and PPE.	Always use appropriate safety equipment and PPE.  Have copy of Material Safety Data Sheets at work site.  Follow label instructions and BLM procedures in H-9011-1, 1112, and 9015 Handbooks.
			Always use appropriate safety equipment and PPE.















## APPENDIX D

### VISUAL RESOURCE MANAGEMENT CLASSES AND OBJECTIVES

The overall objective of Visual Resource Management (VRM) is to manage public lands administered by the Bureau of Land Management (BLM) in a manner that will protect the quality of the visual (scenic) values in accordance with Section 102(a)(8) of the Federal Land Policy and Management Act of 1976. The VRM system uses a methodical approach to inventory and manage the scenic resources of the public lands. It provides a way to identify visual (scenic) values, to establish management objectives through the Resource Management Planning process or on a case-by-case basis, and to provide timely input into proposed surface-disturbing projects.

The visual resource inventory process (BLM Manual H-8410-1) provides the BLM with a means of determining visual values. The inventory consists of a scenic quality evaluation, a sensitivity level analysis, and a delineation of distance zones. Based on these factors, BLM-administered lands are placed into one of four VRM classes.

Class I, the most highly valued, is assigned to those areas where decisions have been made to maintain a natural landscape. This includes areas such as national wilderness, the wild component of a Wild and Scenic River, scenic Areas of Critical Environmental Concern, and other congressionally and administratively designated areas.

Classes II, III, and IV are assigned based on a combination of scenic quality, sensitivity level, and distance. The specific VRM class objectives provide the standards for planning, designing, and evaluating actions.

The Visual Contrast Rating System (Manual Section 8431) provides a methodical way to evaluate activities and determine whether they conform with the approved VRM objectives. The degree of contrast is measured in terms of the basic elements of form, line, color, and texture in the predominant natural features of the characteristic landscape.

The VRM classes and their management objectives are as follows.

**Class I** To preserve the existing character of the landscape. This class provides for natural ecological changes; however, it does not preclude limited management activity. The level of change to the characteristic landscape should be very low and must not attract attention.

**Class II** To retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities may be seen, but should not attract the attention of the casual observer. Any changes must mimic the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.

**Class III** To partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Management activities may attract attention but should not dominate the view of the casual observer. Changes should mimic the basic elements found in the predominant natural features of the characteristic landscape.

**Class IV** To provide for management activities that require major modification of the existing character of the landscape. The level of change to the characteristic landscape can be high. These management activities may dominate the view and be a major focus of viewer attention. However, every attempt should be made to minimize the impact of these activities through careful location, minimal disturbance, and repetition of the basic landscape elements.















## APPENDIX E

### RECREATION OPPORTUNITY SPECTRUM

#### INTRODUCTION

The goal of the recreationist is to have satisfying leisure experiences by participating in preferred activities in favorable environmental settings. Opportunities for achieving satisfying experiences depend on natural elements such as vegetation, landscape, and scenery, and conditions controlled by land-management agencies, such as developed sites, roads, and regulations. The goal of the recreation resource manager then becomes to provide the opportunities to obtain such experiences by managing the natural setting and the activities within it.

The Recreation Opportunity Spectrum (ROS) is the BLM's framework to inventory, plan, and manage recreational opportunities. The ROS is divided into six classes, ranging from essentially natural, low-use areas (resource-dependent recreational opportunities) to highly developed, intensive use areas (facility/vehicle-dependent recreational opportunities). Each class is defined in terms of three principal components: the environmental setting, the activities possible, and the experiences that can be achieved.

The primary factor in determining ROS classes is the setting. This describes the overall outdoor environment in which activities occur, influences the types of activities, and ultimately determines the types of recreation that can be achieved.

Activities are not completely dependent on opportunity class, and most can take place in some form throughout the spectrum. However, general activities can be characterized for each ROS class. For each person, her/his recreational experience depends on the environmental setting and individual differences based on background, education, sex, age, and place of residence.

#### RECREATION OPPORTUNITY SETTINGS

The ROS encompasses a variety of recreational settings under which certain experiences are possible. Seven elements provide the basis to inventory and delineate recreational settings. These are: access, remoteness, naturalness, facility and site management, visitor management, social encounters, and visitor impacts.

**Access**—Includes the mode of travel used within the area and influences both the level and type of recreational use an area receives.

**Remoteness**—Concerns the extent to which individuals perceive themselves removed from human activity. Vegetation or topographic variation can increase this sense of remoteness. Lack of remoteness is important for some recreational experiences.

**Naturalness**—Concerns the varying degrees of human modification of the environment. Often described in terms of scenic quality influenced by the degree of alteration of the natural landscape.

**Site Management**—Refers to the level of site development. Lack of site modifications can facilitate feelings of self-reliance and naturalness, while highly developed facilities can enhance comfort and increase the opportunity to meet and interact with others.

**Visitor Management**—Includes both regulation and control of visitors as well as providing them with information and services. A continuum of visitor management can be described, ranging from subtle techniques such as site design, to strict rules and regulations. In some recreational settings controls are expected and appropriate; in others, onsite controls detract from the desired experience.



**Social Encounters**—Involve the number and type of others met in the recreation area. Also measures the extent to which an area provides experiences for solitude or social interaction.

**Visitor Impacts**—Affect natural resources such as soil, vegetation, air, water, and wildlife. Even low levels of use can produce significant ecological impacts, and these impacts can influence the visitor's experience.

## **RECREATION OPPORTUNITY CLASSES**

Based on the seven elements described above, six recreation opportunity classes have been developed and are described below. Reclassification of lands can occur in response to alternative management prescriptions.

### **Primitive**

This setting is characterized by a large-sized area of about 5,000 acres or more, lying at least 3 miles from the nearest point of motor vehicle access. It is essentially an unmodified natural landscape, with little evidence of others and almost no onsite management controls. Activities include overnight backpack camping, nature study and photography, back-country hunting, horseback riding, and hiking. The experience provides visitors with a chance to achieve solitude and isolation from human civilization, feel close to nature, and encounter a greater degree of personal risk and challenge.

### **Semi-Primitive Non-Motorized**

This setting consists of about 2,500 acres lying at least 0.5 mile from the nearest point of motor vehicle access. The area is predominantly a natural landscape. Where there is evidence of others, interaction is low, and few management controls exist. Activities include backpack camping, nature viewing, back-country hunting (big game, small game, and upland birds), climbing, hiking, and cross-country skiing. The experience provides for minimal contact with

others, a high degree of interaction with nature and a great deal of personal risk and challenge.

### **Semi-Primitive Motorized**

This setting consists of about 2,500 acres within 0.5 mile of primitive roads and two-track vehicle trails. The area has a mostly natural landscape with some evidence of others (but numbers and frequency of contact seem to remain low) and few management controls. Activities include hunting, climbing, vehicle trail riding, back-country driving, mountain biking, hiking, and snowmobiling. The experience provides for isolation from human civilization, a high degree of interaction with the natural environment and a moderate degree of personal risk and challenge.

### **Roaded Natural**

This setting consists of areas near improved and maintained roads. While these areas are mostly natural in appearance, some human modifications are evident, with moderate numbers of people, visible management controls, and developments. Activities include wood gathering, downhill skiing, fishing, off-highway vehicle driving, interpretive uses, picnicking, and vehicle camping. The experience provides for a sense of security through the moderate number of visitors and developments, and some personal risk-taking and challenges.

### **Rural**

This setting is characterized by a substantially modified natural environment. Resource modification, development, and use are obvious. Human presence is readily evident, and interaction between users is often moderate to high. Activities consist mostly of facility/vehicle-dependent recreation and generally include vehicle sightseeing, horseback riding, on-road biking, golf, swimming, picnicking, and outdoor games. The experience provides for modern visitor conveniences, moderate to high levels of interactions with others, and a feeling of security from personal risk.



## **Urban**

This setting consists of areas near paved highways, where the natural landscape is dominated by human modifications. Large numbers of users can be expected. Sights and sounds of others dominate, while management controls are numerous. Activities are facility/vehicle-dependent and include concerts, wave pools, amusement parks, zoos, vehicle racing facilities, spectator sports, and indoor games. The experience provides for numerous modern conveniences, large numbers of people, interaction with an exotic and manicured environment, and a feeling of high personal security.

### **MANAGEMENT OBJECTIVES FOR ROS CLASSES**

Objectives for a specific class contain minimum guidelines and standards as well as directions concerning the type of activities, physical and social settings, and recreational opportunities to be managed for.

## **Primitive**

The primitive class is managed to be essentially free from evidence of humans and onsite controls. Motor vehicle use within the area is not permitted. The area is managed to maintain an extremely high probability of experiencing isolation from others (not more than three to six encounters per day) and little to no managerial contact. Independence, closeness to nature, self-reliance, and an environment that offers a high degree of challenge and risk characterize this class. Back-country use and management of renewable resources is subject to the protection of back-country recreational values.

## **Semi-Primitive Non-Motorized**

Semi-primitive non-motorized areas are managed to be largely free from the evidence of humans and onsite controls. Motor vehicle use is not permitted (except as authorized). Facilities for the administration of livestock and for visitor use are allowed but limited. Project designs stress the protection of natural values and maintenance of the predominantly natural environ-

ment. Areas are managed to maintain a good probability of experiencing minimum contact with others, self-reliance through the application of back-country skills, and an environment that offers a high degree of risk and challenge.

Back-country use and management of renewable resources are dependent on maintaining naturally occurring ecosystems. The consumption of renewable resources is subject to the protection of back-country recreational values.

## **Semi-Primitive Motorized**

These areas are managed to provide a natural-appearing environment. Evidence of humans and management controls is present but subtle.

Motor vehicle use is allowed, but the concentration of users should be low. Onsite interpretive facilities, low-standard roads and trails, trailheads, and signs should stress the natural environment and be the minimum necessary to achieve objectives.

The consumption of natural resources is allowed. Effort is taken to reduce the impact of utility corridors, rights-of-way, and other surface-disturbing projects on the natural environment. Frequency of managerial contact with visitors is low to moderate.

## **Roaded Natural**

Roaded natural areas are managed to provide a natural appearing environment with moderate evidence of humans. Motor vehicle use is permitted and facilities for this use are provided. Concentration of users is moderate with evidence of others prevalent. Resource modification and use practices are evident but harmonize with the natural environment.

Placement of rights-of-way, utility corridors, management facilities, and other surface-disturbing activities would be favored here over placement in semi-primitive non-motorized and semi-primitive motorized areas. The consumption of natural resources is allowed except at developed trailheads, developed recreational areas and sites, and where geological, cultural,



or natural interests prevail. Frequency of managerial contact with visitors is moderate.

### **Rural**

Rural areas are managed to provide a setting that is substantially modified with moderate to high evidence of civilization. Motor vehicle use is permitted. Concentration of users is often high with substantial evidence of others. Resource modification and use practices are mostly dominant in a somewhat manicured environment. Standards for road, highway, and facility development are high for user convenience. Frequency of managerial contact with visitors is moderate to high.

### **Urban**

Urban areas are managed to provide a setting that is largely modified. Large numbers of users can be expected, and vegetation cover is often exotic and manicured. Facilities for highly intensified motor vehicle use and parking are available, with mass transit often included to carry people throughout the site. The probability for encountering other individuals and groups is high, as is the convenience of recreational opportunities. Experiencing natural environments and their challenges and risks is relatively unimportant. Opportunities for competitive and spectator sports are common.











## APPENDIX F

### SECTION 7 CORRESPONDENCE WITH U.S. FISH & WILDLIFE SERVICE



#### United States Department of the Interior

##### BUREAU OF LAND MANAGEMENT

Albuquerque Field Office  
435 Montano Road NE  
Albuquerque, New Mexico 87107-4935  
www.nm.blm.gov



In Reply Refer To:

6843 (010)

July 22, 2004

#### Memorandum

To: State Supervisor, U.S. Fish and Wildlife Service,  
New Mexico Ecological Services Office, Albuquerque, New Mexico

From: Field Manager, Albuquerque, NM

Subject: Kasha Katuwe Tent Rocks National Monument Plan/Environmental Impact  
Statement for the Albuquerque Field Office

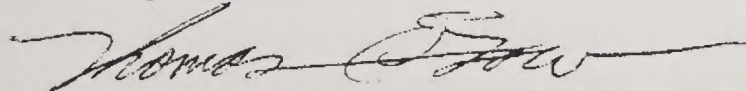
As you may be aware, the Albuquerque Field Office is beginning the process of preparing Management Plan (MP) with accompanying Environmental Impact Statement (EIS) for Kasha Katuwe Tent Rocks National Monument.

As part of the Bureau of Land Management's (BLM's) responsibility under Section 7 of the Endangered Species Act, the BLM is required to request a current species list, or provide a list for your concurrence for the affected areas being evaluated. Earlier this month, Pam Herrera-Olivas of my staff, acquired a species list (dated June 28, 2004) for New Mexico by county from your office.

The BLM is requesting your concurrence that this list is the most current and should be used by our offices as the initial list for beginning preparation of the MP/EIS. This MP/EIS process is anticipated to take approximately 11 months to complete, and we will stay in contact to make sure that the species list has not changed in that time period.

If you have any questions about this matter, please contact Pam Herrera-Olivas at (505) 761-8918.

Ed Singleton,

  
Field Office Manager





# United States Department of the Interior

## FISH AND WILDLIFE SERVICE

New Mexico Ecological Services Field Office  
2105 Osuna NE

Albuquerque, New Mexico 87113 011 ALBUQUERQUE, N.M.  
Phone: (505) 346-2525 Fax: (505) 346-2542

RECEIVED  
BLM

04 AUG 26 AM 11:06

August 23, 2004

Cons. # 2-22-04-I-0600

### Memorandum

To: Field Office Manager, Bureau of Land Management, Albuquerque, New Mexico

From: *Acting* Field Supervisor, U.S. Fish and Wildlife Service, New Mexico Ecological Services Field Office, Albuquerque, New Mexico *A*

Subject: Kasha Katuwee Tent Rocks National Monument Plan/Environmental Impact Statement for the Albuquerque Field Office

Thank you for your July 22, 2004, memorandum requesting information on threatened or endangered species that could be affected by the proposed Management Plan for Kasha Katuwee Tent Rocks National Monument (Monument) in Sandoval County, New Mexico. The Monument is approximately 5,395 acres, located about 40 miles southwest of Santa Fe and 55 miles northeast of Albuquerque.

We have attached a current list of federally endangered, threatened, proposed, and candidate species, and species of concern that may be found in Sandoval County, New Mexico.<sup>1</sup> Under the Endangered Species Act, as amended (Act), it is the responsibility of the Federal action agency or its designated representative to determine if a proposed action "may affect" endangered, threatened, or proposed species, or designated critical habitat, and if so, to consult with us further. If your action area has suitable habitat for any of these species, we recommend that species-specific surveys be conducted during the flowering season for plants and at the appropriate time for wildlife to evaluate any possible project-related impacts. Please keep in mind that the scope of federally listed species compliance also includes any interrelated or interdependent project activities (e.g., equipment staging areas, offsite borrow material areas, or utility relocations) and any indirect or cumulative effects.

Candidates and species of concern have no legal protection under the Act and are included in this document for planning purposes only. We monitor the status of these species. If significant declines are detected, these species could potentially be listed as endangered or threatened.

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<sup>1</sup> Additional information about these species is available on the Internet at <http://nmrareplants.unm.edu>, <http://nrmnhp.unm.edu/bisonm/bisonquery.php>, and <http://ifw2es.fws.gov/endangeredspecies>.



FEDERAL ENDANGERED, THREATENED,  
PROPOSED, AND CANDIDATE SPECIES  
AND SPECIES OF CONCERN IN NEW MEXICO  
Consultation Number 2-22-04-I-0600

August 23, 2004

Sandoval County

ENDANGERED

- Black-footed ferret (*Mustela nigripes*)\*\*
- Southwestern willow flycatcher (*Empidonax traillii extimus*)
- Rio Grande silvery minnow (*Hybognathus amarus*) with critical habitat

THREATENED

- Bald eagle (*Haliaeetus leucocephalus*)
- Mexican spotted owl (*Strix occidentalis lucida*) with critical habitat

CANDIDATE

- Yellow-billed cuckoo (*Coccyzus americanus*)

SPECIES OF CONCERN

- Goat Peak pika (*Ochotona princeps nigrescens*)
- New Mexican meadow jumping mouse (*Zapus hudsonius luteus*)
- Townsend's big-eared bat (*Corynorhinus townsendii*)
- American peregrine falcon (*Falco peregrinus anatum*)
- Arctic peregrine falcon (*Falco peregrinus tundrius*)
- Baird's sparrow (*Ammodramus bairdii*)
- Mountain plover (*Charadrius montanus*)
- Northern goshawk (*Accipiter gentiles*)
- Western burrowing owl (*Athene cunicularia hypugea*)
- Rio Grande cutthroat trout (*Oncorhynchus clarki virginalis*)
- Rio Grande sucker (*Catostomus plebeius*)
- Jemez Mountain salamander (*Plethodon neomexicanus*)
- New Mexico silverspot butterfly (*Speyeria nokomis nitocris*)
- San Ysidro tiger beetle (*Cicindela willistoni funaroii*)
- William Lar's tiger beetle (*Cicindela fulgida williamlarsi*)
- Gypsum phacelia (*Phacelia* sp. nov.)
- Gypsum townsendia (*Townsendia gypsophila*)
- Knight's milk-vetch (*Astragalus knightii*)
- Parish's alkali grass (*Puccinellia parishii*)



- Endangered = Any species which is in danger of extinction throughout all or a significant portion of its range.
- Threatened = Any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.
- Candidate = Candidate Species (taxa for which the Service has sufficient information to propose that they be added to list of endangered and threatened species, but the listing action has been precluded by other higher priority listing activities).
- Proposed = Any species of fish, wildlife or plant that is proposed in the Federal Register to be listed under section 4 of the Act.
- Species of Concern = Taxa for which further biological research and field study are needed to resolve their conservation status OR are considered sensitive, rare, or declining on lists maintained by Natural Heritage Programs, State wildlife agencies, other Federal agencies, or professional/academic scientific societies. Species of Concern are included for planning purposes only.
- \* = Introduced population
- \*\* = Survey should be conducted if project involves impacts to prairie dog towns or complexes of 200-acres or more for the Gunnison's prairie dog (*Cynomys gunnisoni*) and/or 80-acres or more for any subspecies of Black-tailed prairie dog (*Cynomys ludovicianus*). A complex consists of two or more neighboring prairie dog towns within 4.3 miles (7 kilometers) of each other.
- \*\*\* = Extirpated in this county
- † = May occur in this county from re-introductions in Colorado.



# Appendix G

## Special-Status and Sensitive Animal Species in Sandoval County







# APPENDIX G

## SPECIAL-STATUS AND SENSITIVE ANIMAL SPECIES IN SANDOVAL COUNTY

Common Name	Scientific Name	Status <sup>a</sup>	Range & Habitat Association	Potential for Occurrence in Planning Area
<b>FISH</b>				
Rio Grande cutthroat trout	<i>Oncorhynchus clarki virginalis</i>	FWS	Subspecies currently inhabits headwater areas in the Rio Grande and Pecos drainages. Found several miles up Peralta Canyon from the Monument.	None. No suitable habitat.
Rio Grande chub	<i>Gila pandora</i>	FS; NM-s	Occurred historically in the Rio Grande and the Pecos River.	None. No suitable habitat.
Rio Grande silvery minnow	<i>Hybognathus amarus</i>	FE; NM-E; FS	Inhabits variety of habitats in the Rio Grande with shifting sand or silty bottoms. Perennial stretches of the river between Santo Domingo Pueblo (Sandoval County) and Socorro are critical habitat.	None. No suitable habitat.
flathead chub	<i>Platygobio gracilis</i>	BLM	Occurred historically in the Rio Grande.	None. No suitable habitat.
Rio Grande sucker	<i>Catostomus plebeius</i>	FWS; FS	Currently inhabits the northern portion of the Rio Grande and its tributaries.	None. No suitable habitat.
<b>AMPHIBIANS</b>				
Jemez Mountain salamander	<i>Plethodon neo-mexicanus</i>	NM-T	Jemez Mountains in mixed conifer habitat with abundant rotted logs and surface rocks, at elevations of 7,200-9,550 feet.	None. No suitable habitat.
Northern leopard frog	<i>Rana pipiens</i>	BLM; NESL Group 2; FS	Inhabits ponds, wetland areas, riparian areas, and other semi-aquatic environments.	None. No suitable habitat.
<b>BIRDS</b>				
snowy egret	<i>Egretta thula brewsteri</i>	FS	Migrant known to occur throughout New Mexico in wetlands.	None. No suitable habitat.
white-faced ibis	<i>Plegadis chihi</i>	BLM	Statewide migrant in New Mexico. Breeding known to occur in Rio Arriba County. Inhabits shoreline and marsh habitats that border open water; desert riparian; deciduous woodland-marsh; and grassland and agricultural lands.	None. No suitable habitat.
osprey	<i>Pandion haliaetus carolinensis</i>	FS	Rare resident; more commonly a transient or migrant in the Rio Grande Valley. Habitat includes riparian forest near productive fisheries.	None. No suitable habitat.



Common Name	Scientific Name	Status <sup>a</sup>	Range & Habitat Association	Potential for Occurrence in Planning Area
Mississippi kite	<i>Ictinia mississippiensis</i>	FS	Known to summer on golf courses and Air Force bases in the Roswell and Hobbs area.	None. No suitable habitat.
bald eagle	<i>Haliaeetus leucocephalus</i>	FT; NM-T; NESL Group 3	May be present as migrant or wintering bird throughout the Planning Area. While no known nesting sites have been identified within the Planning Area, potential nesting habitat is limited to riparian habitat along the Rio Grande. Riparian areas and wetlands are primary habitat for winter roosting and during migration.	None. No suitable habitat.
Northern goshawk	<i>Accipiter gentilis</i>	FWS; BLM; FS	Permanent resident of most mountain ranges in New Mexico. Prefer mature, closed-canopied coniferous forests of mountains and mesas. Typically found in ponderosa pine, mixed-conifer, and spruce-fir forests. Nest sites located in large trees in aged forests.	None. No suitable habitat.
common black hawk	<i>Buteogallus anthracinus anthracinus</i>	NM-T; FWS; FS	Subspecies occurs primarily at lower elevations in southwestern New Mexico. However, individuals have been recorded in the middle Rio Grande Valley and have bred northward to Bernalillo County. Nesting occurs in mature, well-developed riparian trees located near permanent streams.	None. No suitable habitat.
Swainson's hawk	<i>Buteo swainsoni</i>	NESL Group 3; BLM; FS	Known to occur throughout New Mexico. Prefers mixed to short-grass habitats with scattered trees. Nests in isolated trees, often associated with riparian woodlands.	None. No suitable habitat.
zone-tailed hawk	<i>Buteo albonotatus</i>	FS	Most reports of this species within New Mexico are within riparian and montane habitats.	None. No suitable habitat.
ferruginous hawk	<i>Buteo regalis</i>	FWS; BLM; FS; NESL Group 3	In New Mexico, this species occurs primarily as a rare to uncommon transient and winter migrant statewide. Breeding by this species is less common in New Mexico. Nest sites include trees, ledges, large rock outcrops, and low cliffs in sagebrush valleys and rolling grasslands.	None. No suitable habitat.
American peregrine falcon	<i>Falco peregrinus anatum</i>	NM-T; FWS; BLM; NESL Group 4	In New Mexico, subspecies breeds locally in mountain areas and migrates statewide. Nests often located on cliff faces with overhanging ledges or rock outcrop.	None. No suitable habitat.
sora	<i>Porzana carolina</i>	FS	Dependent on riparian and associated aquatic habitats.	None. No suitable habitat.
whooping crane	<i>Grus americana</i>	FE; EXPN, mg; NM-E; FS	Known to migrate throughout New Mexico. Typical habitat includes marsh and wetland areas.	None. No suitable habitat.
Western snowy plover	<i>Charadrius alexandrinus nivosus</i>	FS	Known to migrate & breed in New Mexico. Preferred habitats include lake shores and playas.	None. No suitable habitat.



Common Name	Scientific Name	Status <sup>a</sup>	Range & Habitat Association	Potential for Occurrence in Planning Area
mountain plover	<i>Charadrius montanus</i>	FS; BLM; NESL Group 4	Known to occur in most counties. Inhabits flat, short-grass prairie in areas often grazed by livestock and in areas occupied by prairie dog colonies.	None. No suitable habitat.
yellow-billed cuckoo	<i>Coccyzus americanus</i>	FC; BLM; NESL Group 3	Known to occur throughout New Mexico. Potential habitat defined as open woodlands, and streamside willow and alder groves. Mature riparian woodlands along the Rio Grande may provide suitable habitat.	None. No suitable habitat.
flamulated owl	<i>Otus flammeolus</i>	FS	Expected to occur in all mid-elevation pine forests west of the Black Hills.	None. No suitable habitat.
Western burrowing owl	<i>Athene cunicularia hypugea</i>	FWS; BLM; FS	Summer resident in New Mexico. Typically nests in abandoned burrows of prairie dogs, ground squirrels, foxes, and badgers in grassland, open shrubland, and woodland communities.	Low. Species could occur within suitable habitats in the Monument, but no prairie dog dens have been observed.
Mexican spotted owl	<i>Strix occidentalis lucida</i>	FT; NESL Group 3	In New Mexico, subspecies has been reported in a number of counties, including San Juan, Sandoval, McKinley, Bernalillo, Torrance, Lincoln, and Eddy. Found primarily in canyons, mixed conifer forests, pine-oak woodlands, and riparian areas. Nests on platforms and large cavities in trees, on ledges, and in caves.	None. No suitable habitat.
black swift	<i>Cupseloides niger borealis</i>	NM-s	Typically nests in shallow caves in steep canyons near waterfalls.	None. No suitable habitat.
broad-billed hummingbird	<i>Cynanthus latirostris magicus</i>	NM-T; FS	In New Mexico, subspecies is a regular summer resident only in Guadalupe Canyon of southwestern NM (Hidalgo County). Habitats used are varied. Nesting habitat is typically riparian woodland with cottonwoods, hackberry, and sycamore at low to middle elevations.	None. No suitable habitat.
belted kingfisher	<i>Ceryle alcyon</i>	FS	Known to occur along the middle Rio Grande where banks suitable for nesting and riparian habitat are present.	None. No suitable habitat.
South-western willow flycatcher	<i>Empidonax traillii extimus</i>	FE; NM-E; NESL Group 2	Breeds primarily in New Mexico, Arizona, and southern California. Most records in New Mexico are from the Rio Grande Valley and westward, with the largest colony on the Gila River. Nesting habitat includes shrubs and trees in willow thickets, shrubby mountain meadows, and deciduous woodlands along streams, lakes, and bogs.	None. No suitable habitat.



Common Name	Scientific Name	Status <sup>a</sup>	Range & Habitat Association	Potential for Occurrence in Planning Area
loggerhead shrike	<i>Lanius ludovicianus</i>	FWS; BLM	Widespread summer resident in New Mexico. Known to occur throughout the State. Primary habitat is open country interspersed with pastures, grasslands, and hedgerows below 9,000 feet. Nesting habitat includes sagebrush areas, desert scrub, piñon-juniper woodlands, and woodland edges.	Moderate. Species could nest within potentially suitable shrub and woodland habitats.
gray vireo	<i>Vireo vicinior</i>	NM-T	Neotropical migrant that breeds only within portions of the southwestern states. In New Mexico, has been recorded in the Guadalupe and San Andres Mountains, the San Juan River Valley, Navajo Lake, and around Santa Fe. Records for the Sandia and Manzano Mountains are for rare transients only. Uses upland habitats in canyons, foothills, and open woodlands. Most use is within fairly open woodland savannahs.	Low. Species could occur within suitable habitats in the Monument. Habitat is marginal.
gray catbird	<i>Dumetella carolinensis ruficrissa</i>	FS	Known to inhabit the lower and possibly the middle Rio Grande Valley.	Low. Species could occur within suitable habitats in the Monument, which is further north than the northernmost recorded sighting.
American redstart	<i>Setophaga ruticilla tricolora</i>	FS	Neotropical migrant over-winters in mature tropical forests. Migrates through New Mexico and may nest in undisturbed woodlands. Tends to shun disturbed areas and is not likely to occur along roads.	None. No suitable habitat.
Baird's sparrow	<i>Ammodramus bairdii</i>	NM-T; FWS; BLM	Grassland bird breeds in the northern Great Plains and winters in southeastern Arizona to southwestern Texas. Primarily a migrant in New Mexico. Uses short-grass prairie, grasslands, and weedy fields.	None. No suitable habitat.
<b>MAMMALS</b>				
Western small-footed myotis	<i>Myotis ciliolabrum melanorhinus</i>	FWS; BLM	In New Mexico, subspecies known to occur throughout much of the state. Found in woodlands, forests, and desert communities. Known to roost in caves, abandoned buildings, under rocks, in crevices, and under pine bark. Occurs at elevations of 5,200-7,050 feet.	Low. Species could occur within suitable habitats in the Monument. Habitat is marginal.
Yuma myotis	<i>Myotis yumanensis</i>	FWS; BLM	Known to occur in Sandoval, Rio Arriba, and Chaves counties. Uncommon seasonal visitor to desert, grassland, woodland, and riparian areas at 4,000-7,000 feet. Known to roost in buildings, caves, and crevices.	Low. Species could occur within suitable habitats in the Monument. Habitat is marginal.



Common Name	Scientific Name	Status <sup>a</sup>	Range & Habitat Association	Potential for Occurrence in Planning Area
little brown myotis	<i>Myotis lucifugus carissima</i>	NM-s	Known to occur in Sandoval County. Known roost sites in buildings.	None. No suitable habitat.
occult little brown bat	<i>Myotis lucifugus occultus</i>	FWS; BLM	Widely distributed throughout western and central New Mexico. Known to occur in McKinley and Sandoval counties. Uses riparian habitats associated with permanent water sources such as streams, drainage ditches, and lakes. Also known to roost in human-built structures, caves, tunnels, and hollow trees including piñon-juniper, ponderosa pine, and other conifers. Most common at higher elevations of 6,000-9,000 feet.	Low. While species migrates through lower elevations, its preferred habitats are not present in the Monument.
long-legged myotis	<i>Myotis volans interior</i>	BLM; NM-s	Known to occur throughout New Mexico. Habitat is usually ponderosa pine and higher elevations.	Low. While species migrates through lower elevations, its preferred habitats are not present in the Monument.
fringed myotis	<i>Myotis thysanodes</i>	FWS; BLM	Distributed throughout New Mexico except for the eastern portion of the State. Occurs in a wide variety of vegetation types, including mixed shrub, grassland, sagebrush, piñon-juniper woodland, pine and mixed conifer forests, riparian woodlands, and cropland. Known to roost in caves, mines, and buildings.	Moderate. Species could occur within suitable habitats in the Monument.
long-eared myotis	<i>Myotis evotis</i>	FWS; BLM	Distributed mainly within western New Mexico. Subspecies uses piñon-juniper woodlands and coniferous forests, and roosts in caves and buildings, generally above 6,700 feet.	Moderate. Species could occur within suitable habitats in the Monument.
spotted bat	<i>Euderma maculatum</i>	NM-T; BLM; FS	Known to occur in Sandoval and Rio Arriba counties. Typical habitat includes rocky areas near perennial water and other habitats including riparian, piñon-juniper woodlands, and ponderosa pine. Roost sites include crevices or cracks in cliffs or under loose rocks.	None. No suitable habitat.
pale Townsend's big-eared bat	<i>Plecotus townsendii</i>	FWS; BLM	Subspecies fairly common in New Mexico and is known to occur in Sandoval and Rio Arriba counties. Primarily a cave dweller and is the bat most dependent upon inactive mines in the southwest. Can be found in desert shrublands, piñon-juniper woodlands, coniferous forests, and mixed grass prairies. Roosts in trees, caves, or human-built structures. Only subspecies of bat commonly found in New Mexico during winter.	Moderate. Species could occur within suitable habitats in the Monument.



Common Name	Scientific Name	Status <sup>a</sup>	Range & Habitat Association	Potential for Occurrence in Planning Area
big free-tailed bat	<i>Nyctinomops macrotis</i>	FWS; BLM	Known to occur in Sandoval and Rio Arriba counties. A summer resident that prefers coniferous and mixed woods and depends on rocky cliffs for roosting. Can be found in piñon-juniper woodland, pine and mixed coniferous forests, desert grassland, and other desert communities. In addition to roosting on rocky cliffs, also may roost in caves, rock fissures, bridges, and buildings.	Moderate. Species could occur within suitable habitats in the Monument.
Goat Peak pika	<i>Ochotona princeps nigrescens</i>	FWS; BLM; FS; FWS	Subspecies is confined to the Jemez Mountains in Sandoval County. Restricted to patches of large talus (lava) slopes and boulder fields in alpine and sub-alpine zones above 9,000 feet.	None. No suitable habitat.
Gunnison's prairie dog	<i>Cynomys gunnisoni</i>	NM-sn	Known to occur throughout much of western New Mexico in a wide variety of habitats and elevations.	Low. No individuals have been observed, presumably because no suitable habitat exists in the Monument. Soil may be too rocky. BLM will monitor for future immigration into the Monument.
New Mexican meadow jumping mouse	<i>Zapus hudsonius luteus</i>	NM-T; FWS; BLM; FS	Identified as occurring in Sandoval and Rio Arriba counties. Subspecies inhabits narrow grass-forb-willow streamside riparian habitat along permanent waterways and wet meadows in river floodplains.	None. No suitable habitat.
American marten	<i>Martes americana origenes</i>	NM-T, FS	Known to occur in Sandoval and Rio Arriba counties. Habitat includes spruce-fir forests and alpine habitat with an understory of fallen logs and stumps.	None. No suitable habitat.
<b>INVERTEBRATES</b>				
wrinkled marshsnail	<i>Stagnicola caperatus</i>	NM-E	Known from two isolated populations in wetlands in the Bitter Lake National Wetlands Reserve and Jemez Mountains.	None. No suitable habitat.
San Ysidro mealybug	<i>Distichlococcus fontanus</i>	NM-sn	Occurs only in a small area localized around San Ysidro (in Sandoval County).	None. No suitable habitat.
Socorro Mountain snail	<i>Oreohelix neomexicanus</i>	NM-sn	Occur in the vicinity of limestone cliffs in thick, moist litter derived mainly from fallen leaves of piñon pine ( <i>Pinus edulis</i> ), one-seeded juniper ( <i>Juniperus monosperma</i> ), and various shrubs.	None. No suitable habitat.



Common Name	Scientific Name	Status <sup>a</sup>	Range & Habitat Association	Potential for Occurrence in Planning Area
pearly checkerspot butterfly	<i>Charidryas acaustus</i>	FWS	A butterfly of the western U.S. east to Nebraska, and from Canada to Mexico. Has been identified as occurring in Sandoval County. Habitats include badlands near sagebrush scrub, piñon-juniper woodlands, and dry gulches. Caterpillar hosts include rabbitbrush ( <i>Chrysothamnus viscidiflorus</i> ) and aster ( <i>Machaeranthera</i> ) in the sunflower family ( <i>Asteraceae</i> ).	Low. Species could occur within suitable habitats in the Monument. Habitat is marginal.

Note <sup>a</sup> Status:

- BLM—BLM sensitive
- FC—Federal candidate
- EXPN—experimental population; mg—Recovery/Management Plan or Cooperative Agreement
- FE—Federally listed as endangered
- FS—Forest Service Sensitive
- FT—Federally listed as threatened
- FWS—U.S. Fish & Wildlife Service species of concern
- NM-E—State-listed as endangered in New Mexico
- NM-s—State sensitive
- NM-sn—State sensitive & endemic
- NM-T—State-listed as threatened in New Mexico

NESL—Navajo Endangered Species List

Group 1—No longer occurs on the Navajo Nation

Group 2—Any species or subspecies in danger of being eliminated from all or a significant portion of its range on the Navajo Nation

Group 3—Any species or subspecies likely to become an endangered species, within the foreseeable future, throughout all or a significant portion of its range on the Navajo Nation

Group 4—Any species or subspecies for which the Navajo Fish and Wildlife Department (NF&WD) does not currently have sufficient information to support its being listed in Group 2 or Group 3, but has reason to consider it. The NF&WD will actively seek information on these species to determine if they warrant inclusion in a different group, or removal from the list. Species in Group 4 have no legal protection under 17 NTC S 507.

NATIVE SPECIES APPARENTLY NO LONGER OCCURRING IN SANDOVAL COUNTY

- black-footed ferret—*Mustela nigripes* (extirpated from NM)
- gray wolf—*Canis lupus*
- grizzly bear—*Ursus arctos* (extirpated from NM)
- American eel—*Anguilla rostrata* (extirpated from NM)
- blue sucker—*Cypleptus elongates*
- freshwater drum—*Aplodinotus grunniens* (extirpated from NM)
- gizzard shad—*Dorosoma cepedianum*
- gray rehorse—*Moxostoma congestum*
- Rio Grande bluntnose shiner—*Notropis sinus sinus* (extinct)
- shovelnose sturgeon—*Scaphirhynchus platyrhynchus* (extirpated from NM)















## APPENDIX H

### PLANT SPECIES OF CONCERN IN SANDOVAL COUNTY

Common Name	Scientific Name	Status <sup>a</sup>	Range & Habitat Association	Potential for Occurrence in Planning Area
grama grass cactus	<i>Pediocactus papyracanthus</i>	BLM; NESL—Group 4	Piñon-juniper woodland and desert grassland. Almost always associated with grama grasses, especially blue grama.	Could potentially exist in the vicinity of the Monument, although the habitat is not ideal. Prefers gypsum soils, which do not occur in the Monument. Surveys conducted by the NMHP <sup>a</sup> in 2001-2003 failed to locate any plants, and it is doubtful any will be identified in the future.
Parish's alkali grass	<i>Puccinella parishii</i>	BLM; FS; FWS; NM-E; NESL—Group 2	Habitat includes alkaline springs, seeps, and seasonally wet areas (cienegas) that occur at the head of drainages or on gentle slopes at elevations of 2,600-7,200 feet; requires continuously damp soils during its late winter to spring growing season.	None. No suitable habitat.
Knight's milkvetch	<i>Astragalus knightii</i>	BLM; FWS	Mesa Prieta; rimrock ledges of Dakota Formation sandstone substrate in Great Basin conifer and piñon-juniper woodlands and at elevations of 5,500-7,500 feet.	None. No suitable habitat.
Plank's campion (or Plank's catchfly)	<i>Silene plankii</i>	BLM	Includes igneous cliffs and rocky outcrops at elevations of 5,000-8,000 feet; restricted to mountains near the Rio Grande.	None. No suitable habitat.
gypsum phacelia	<i>Phacelia sp. nov.</i>	FWS	Weathered gypsum outcrops and gypsiferous and pure gypsum soils in Great Basin conifer woodland at elevations of 5,500-7,500 feet, and in Great Basin desert scrub. Species is highly habitat specific.	None. No suitable habitat.
gypsum townsendii	<i>Townsendia gypsophila</i>	BLM; FWS	Weathered gypsum outcrops and gypsiferous and pure gypsum soils in Great Basin conifer woodland at elevations of 5,500-7,500 feet, and in Great Basin desert scrub. Species is highly habitat specific.	None. No suitable habitat.
tufted sand verben	<i>Abronia bigelovii</i>	NM-s	Populations are usually small and restricted to gypsum or strongly gypsiferous soils derived from gypsum outcrops. Plants are conspicuous on the otherwise rather barren gypsum. Although locally rather common, they do not form dense populations.	None. No suitable habitat.



Common Name	Scientific Name	Status <sup>a</sup>	Range & Habitat Association	Potential for Occurrence in Planning Area
Santa Fe milkvetch	<i>Astragalus feensis</i>	NM-s	Sandy benches and gravelly hillsides in piñon-juniper woodland or plains-mesa grassland at 5,100-6,100 feet.	Could potentially exist in the vicinity of the Monument, although the habitat is not ideal. Surveys conducted by the NMHP in 2001-2003 failed to locate any plants; however, the area will continue to be monitored for this species.
La Jolla prairie clover	<i>Dalea scariosa</i>	NM-s	Open sandy clay banks and bluffs, often along roadsides, at about 4,750-4,900 feet.	Could potentially exist in the vicinity of the Monument, although the habitat is not ideal. The Monument is higher in elevation than that at which this plant normally grows, and lacks the clay soil in which it grows. Surveys conducted by the NMHP in 2001-2003 failed to locate any plants, and it is doubtful any will be identified in the future.
Wahatoya Creek larkspur	<i>Delphinium robustum</i>	FS	Canyon bottoms and aspen groves in lower and upper montane coniferous forest at 7,200-11,200 feet.	None. No suitable habitat.
Sapello Canyon larkspur	<i>Delphinium sapellonis</i>	NM-s	Canyon bottoms and aspen groves in lower and upper montane coniferous forest at 8,000-11,500 feet.	None. No suitable habitat.
New Mexico stickseed	<i>Hackelia hirsuta</i>	NMHP	Dry sites of shaley or igneous soils in lower to upper montane coniferous forest, usually with Gambel oak at 7,700-10,200 feet.	None. No suitable habitat.
Sandia alumroot	<i>Heuchera pulchella</i>	NM-s	Limestone cliffs in lower and upper montane coniferous forest at 8,000-10,700 feet.	None. No suitable habitat.
Springer's blazingstar	<i>Mentzelia springeri</i>	NM-s	Volcanic pumice and unconsolidated pyroclastic ash in piñon-juniper woodland and lower montane coniferous forest at 7,000-8,000 feet. Species is narrowly endemic to the loose volcanic substrates of the Jemez Mountains and is often seen where roads cut through pumice.	Could potentially exist in the vicinity of the Monument, although the habitat is not ideal. The Monument is on the lower borderline in elevation for species. Surveys conducted by the NMHP in 2001-2003 failed to locate any plants; however, the area will continue to be monitored for this species.

Note: <sup>a</sup> Status: BLM—BLM sensitive; FS—U.S. Forest Service sensitive; FWS—U.S. Fish & Wildlife Service species of concern; NMHP—New Mexico Heritage Program;

NM-s—State sensitive; NESL—Navajo Endangered Species List [Group 2—Any species or subspecies in danger of being eliminated from all or a significant portion of its range on the Navajo Nation; Group 4—Any species or subspecies for which the Navajo Fish and Wildlife Department. (NF&WD) does not currently have sufficient information to support its being listed in Group 2 or 3, but has reason to consider it. The NF&WD will actively seek information on these species to determine if they warrant inclusion in a different group, or removal from the list. Species in Group 4 have no legal protection under 17 NTC S 507.].



## Wild & Scenic River Evaluation for Kasha-Katuwe Tent Rocks National Monument







## APPENDIX I

### WILD AND SCENIC RIVER EVALUATION FOR KASHA-KATUWE TENT ROCKS NATIONAL MONUMENT PLANNING AREA

BLM planning guidance suggests that Wild and Scenic River studies be conducted for waterways within a planning area. The studies begin with a determination of eligibility. The eligibility study simply determines whether the river or segment of river should be carried forward into the classification and suitability phases of the study.

Through its planning process, the BLM has assessed those river segments contained within BLM-administered public lands in the Planning Area. The Peralta Canyon stream channel located within Kasha-Katuwe Tent Rocks National Monument and extending through the Planning Area has been assessed to see if it is worthy of inclusion in the Wild and Scenic River System.

To be eligible for designation, a river or segment must be free-flowing and contain one or more outstandingly remarkable values. "Free-flowing" is defined as existing or flowing in a natural condition without impoundment, diversion, straightening, rip-rapping, or other modifications of the waterway that would encourage future construction of such structures. As a general rule, the water course should contain regular and predictable flows (even though intermittent, seasonal, or interrupted). A segment should not be ephemeral (with a flow lasting only a few days out of the year).

"Outstandingly remarkable values" are defined as natural and cultural values, such as scenic, recreational, geologic, fish habitat, wildlife, historic, cultural or other similar

values, that are either unique at the regional level or exemplary at the national level. To qualify as an outstandingly remarkable value, that value should be located in the river segment or on its immediate shoreline, contribute substantially to the functioning of the river ecosystem, and/or owe its location or existence to the presence of the river.

A general inventory of the existing public lands within the Planning Area has found no free-flowing perennial streams, springs, or seeps. Waterflows within the Peralta Canyon stream channel may occur at any time of the year as a result of summertime thunderstorms, melting snow, or frontal system rainfall. Following rainstorms, streamflow for brief durations is characteristic. Peralta Canyon may experience longer periods of flow from snowmelt runoff from the higher terrain surrounding the Monument.

Based upon the free-flowing criteria, no segment of the Peralta Canyon stream channel nor any other drainage extending through public lands within the Planning Area is determined to be eligible. At this time neither the Peralta Canyon stream channel nor its immediate shoreline on public lands within the Monument appears to possess any outstandingly remarkable values.

In investigating public land within the Planning Area, the BLM has found no river or segment that meets the eligibility criteria as defined in the Wild and Scenic Rivers Act for inclusion as a component of the National Wild and Scenic Rivers System.















## APPENDIX J

### VEGETATION TREATMENTS AND FIRE MANAGEMENT IN THE KASHA-KATUWE TENT ROCKS NATIONAL MONUMENT PLANNING AREA

#### Major Land Resource Area

The project area covered by this RMP has been characterized by the Natural Resources Conservation Service (NRCS) as Major Land Resource Area (MLRA) No. 36—Western Plateau, subresource area WP-2—New Mexico and Arizona Plateaus and Mesas (USDA, NRCS 2004). It consists of broad mesas and plateaus interspersed with numerous deep canyons and dry washes, mesa breaks, and canyon walls. Scattered throughout the region are isolated volcanic peaks, cones, and lava flows.

This area is characterized as semi-arid, with distinct seasonal precipitation and temperature patterns associated with a continental climate. Average annual precipitation approaches 10-16 inches. Most of the precipitation comes in the form of local high-intensity summer storms of short duration. Such storms occur when warm, moist Gulf air moves inland and becomes unstable over the hot terrain, causing thundershowers. These usually occur in the late afternoon. A secondary peak in precipitation comes in the form of snow and rain/snow mix that occurs in late winter and early spring. Season, quantity, frequency, and intensity of precipitation typically vary greatly from place to place and from year to year. What precipitation does fall can be quite effective for vegetative response because it occurs during much of the growing season (April to October). The natural vegetation has, of course, evolved under these conditions, and the erratic precipitation pattern is the predictable norm (Dick-Peddie 1993).

#### Vegetation and Fire Regime

Climate, vegetation, and fire are frequently considered together in land use planning and environmental analysis. This is because climate (i.e., temperature, precipitation, solar degree days,

and growing season) is the major determinant of vegetation patterns, while fire is a component of the natural ecological processes that supports, maintains, and/or alters a given plant community.

Dick-Peddie (1993) states: "In New Mexico, generally the vegetation changes on an available-moisture gradient (lower to higher) as follows: scrubland to grassland to woodland to forest. *Moisture availability* is considered here to be moisture available to plants for their establishment and maintenance. *Available moisture* is considered here as the moisture which is free to enter the roots. Moisture availability as the primary factor influencing vegetative patterns in New Mexico was recognized by Watson in 1912, when he wrote, 'The chief factor determining this change is moisture, the supply of which is largely determined by precipitation, ability to hold it, and protection from drying winds and sun.' . . . Temperature and available moisture together can be considered primary factors producing vegetation patterns. Features that singly or in combination affect these two primary factors can be thought of as secondary. Examples of secondary factors affecting moisture availability are latitude, altitude, annual precipitation, evaporation rates, soil texture and structure, slope, exposure (aspect), salinity, and season."

The potential natural plant communities and associated vegetation within the Monument are highly diverse as a result of the variability of soils, elevation, annual and seasonal precipitation, temperature, degree of slope and aspect, and disturbance (USDA, NRCS 2004). Annual precipitation comes primarily in the form of rainfall during the months of July, August, and September, although wintertime precipitation in the form of snow, sleet, or rain is sometimes significant. The rainfall patterns generally favor warm-season perennial vegetation, while the



temperature regime tends to favor cool-season vegetation. This creates a complex community of plants on any given ecological site, which is quite susceptible to disturbance and is at or near its productive potential only when both the natural warm and cool-season dominants are present.

Soils described in the Sandoval County Soil Survey (USDA, SCS 1987, updated in 1992-1993) are assigned management potentials under two broad interpretations, Rangeland and Woodlands. The soils occurring within the Monument (see Map 9) and their management potential are listed below.

Map Unit Symbol	Soils Description	% Slopes	Management Potential	Acres
52	Totavi loamy sand	0-5	Woodland	35
104	Cochiti-Montecito association	1-30	Woodland	1,022
206	Pinitos loam	1-15	Woodland	58
300	Waumac (50%)-Bamac (30%) association	1-7	Rangeland	485
307	Flugle (60%)-Waumac (25%) complex	1-8	Rangeland	460
345	Espiritu (50%)-Bamac (35%) association	15-55	Rangeland	246
353	Cochiti-Espiritu association	15-55	Woodland	2,226
603	Laventana-Mirand very cobbly loam	15-55	Woodland	94
Total				4,626

The management potentials (Rangeland/Woodland) are further broken down into site-specific descriptions and productivity, **based on a soil's capability to support and maintain the potential natural plant community** structure and function.

Within the rangeland capabilities are three range sites, described as "Sandy," "Savannah," and "Foothills" Ecological Site Descriptions (ESDs). These are located in valleys, mesa tops, and at the base of steep slopes, respectively. These sites normally occur on gently to moderately sloping topography that may range as high as 15 percent slope but averages less than 10 percent. The soils forming the three rangeland sites are found as associations or complexes that often produce indistinct boundaries between one ESD and another. Rangeland site productivity is measured in pounds of air dry forage per acre (lbs/ac) and is presented as a range for each ecological site under unfavorable and favorable growing conditions. Grazing capacity of rangeland is determined based on the site's current potential to produce forage balanced against a desired amount of residual vegetation/stubble height for watershed protection and the proper

amount of forage to be harvested by grazing ungulates.

The Woodlands are described by indicator species with their productivity measured by Site Index (SI) and/or in cubic feet per acre (cuft/ac). The indicator species is the species that is common in the area and is generally, but not necessarily, the most productive on the soil. Site index is the average height, in feet, that the trees attain in a specified number of years. This index applies to fully stocked, even-aged, unmanaged stands. Site indexes shown in the table are averages based on measurements made at sites that are representative of the soil series and where the site has been free of past fire and disturbances. For non-timber species, such as oneseed juniper and Utah juniper, productivity is a measure of fiber (wood) in cubic feet per acre (cuft/ac).

The Monument has approximately 512 acres (9 percent) with slopes greater than 60 percent; these have little potential to support vegetation due to the steep slopes and shallow soils. Areas that are less than 60 percent slope are comprised of woodlands and forest, and as percent slope



Map Unit Symbol	Management Potential	Indicator Species Site Descriptions	Site Productivity SI :: cuft/ac, or lbs (air dry forage)/ac	Trees to Manage
52	Woodland	Utah juniper Oneseed juniper Ponderosa pine	SI 75 :: 57 cuft/ac	-- -- Ponderosa pine
104	Woodland	Oneseed juniper Two-needle piñon	SI 34 :: 14 cuft/ac SI 51	-- --
206	Woodland	Oneseed juniper Two-needle piñon	SI 45	-- Two-needle piñon
300	Rangeland	Sandy	325-860 lbs/ac	--
307	Rangeland	Sandy Savannah	325-860 lbs/ac 300-875 lbs/ac	-- --
345	Rangeland	Foothills	375-750 lbs/ac	--
353	Woodland	Oneseed juniper Two-needle piñon	SI 25-51	-- --
603	Woodland	Ponderosa pine	SI 55-76 :: 43-57 cuft	Ponderosa pine

decreases the land's potential natural plant community moves toward a grass/shrub community.

**Vegetation** forms the basis for describing plant community structure and function. **Fire**, a component of the natural ecological processes, supports, maintains, and/or alters a given plant community. Ecological site descriptions developed by the NRCS are used to portray rangeland plant community structure, whereas fire regimes are used to classify the role fire played across the landscape. The presence of vegetation (fuels) is essential for fire to occur.

The concept of **Fire Regime** is used to broadly describe the fire frequency (average number of years between fires) and severity (amount of replacement) that may occur on dominant overstory vegetation. Two natural fire regimes were historically present in the Monument, both with an average fire frequency of less than 35 years. Under Fire Regime I (low and mixed severity fires), surface fires were most common and less than 25 percent of the dominant overstory vegetation was replaced. Under Fire Regime II (high severity fires), stand replacement fires were common and greater than 75 percent of the dominant overstory was replaced.

In addition to classification of the Monument lands into two historic Fire Regimes based on natural fire frequency, severity, and dominant overstory replacement, the lands have been further placed into **Fire Regime Condition (FRC) Classes** based on the degree of departure from the natural (historic) fire regime. Departure from historic fire regimes results in "alterations of key ecosystem components such as species composition, structural stage, stand age, and canopy closure. One or more of the following activities may have caused this departure: fire exclusion, timber harvesting, grazing, introduction and establishment of exotic species, insects and disease (introduced or native), or other management activities" (Schmidt et al. 2002).

FRC Class I is characterized as being within the natural range of variability for vegetation structure and function; fuel composition; fire frequency, severity and pattern; and other associated disturbances. Since the introduction of livestock grazing and implementation of fire suppression, the historic fire regime within the Monument has been significantly altered from a high frequency, low intensity fire regime to a low frequency, high intensity fire regime, with the result that none of the Monument lands are



FRC Class I. Based on departure from the natural fire regime, the Monument lands have been classified as FRC Class II (moderately altered from the natural fire regime, with moderate risk of losing key ecosystem components) or FRC Class III (significantly altered from the natural fire regime, with high risk of eliminating desired ecosystem components). The Statewide RMP amendment *Fire and Fuels Management Resource Management Plan Amendment and Environmental Assessment* (USDI, BLM 2004b) describes the Fire Regime Condition Classes for the vegetative communities or plant associations that occur on the Monument (Open Conifer Woodlands, Closed Conifer Woodlands, and Chihuahuan Desert Grasslands).

The **potential natural plant community** of woodlands and forest stands within the Monument is described as 70 percent piñon-juniper woodlands and 2 percent ponderosa pine forests, while the remaining 28 percent of the Monument consists of grass/shrub rangeland communities (USDA, SCS 1987, updated in 1992-93). On the basis of local fire history information (Allen 2002), the young ages of most piñon-juniper trees of the Pajarito Plateau located near Los Alamos, NM (Julius 1999), and soils data (McFadden et al. 1996), we believe that many upland mesa areas now occupied by dense piñon-juniper woodlands were formerly more open, with fewer trees and well developed herbaceous understories that: (1) protected the soil from excessive erosion during intense summer thunderstorm events, and (2) provided a largely continuous fuel matrix, which allowed surface fires to spread and maintain these vegetative types.

Shifts may occur in plant community dominance, structure, and function under natural disturbance. These natural disturbances—fire, drought, and insects—play a vital role in plant community dynamics and development of vegetation patterns. Other human-induced disturbances—logging, livestock grazing, and fire suppression—may also encourage changes in plant community structure and function. The following illustrates the effects to the potential natural

plant communities from human-induced disturbance.

Settlement and the introduction of domestic livestock into the Rio Grande Valley by Euro-Americans began in 1598; however, significant livestock grazing did not occur until after the railroads linked the Southwest to commercial markets in the 1880s. Millions of sheep and cattle were placed onto the New Mexico landscape at that time, with unrestricted grazing on public lands. Sharp reductions in the herbaceous ground cover and associated litter resulted, effectively eliminating previously widespread surface fires. This was coupled with institutionalized fire suppression initiated by the Federal government after 1910. Severe drought during the 1950s contributed to declines in ground cover (Allen and Breshears 1998). Fire-sensitive piñon and juniper trees became established in densities unprecedented for at least the past 800 years. As these trees grew, they became increasingly effective competitors for water and nutrients. Thus a positive feedback cycle was initiated that favors tree invasion and decreased herbaceous ground cover (Allen 1989; Gottfried et al. 1995).

Arnold (1950), Cooper (1960), Madany and West (1983), Mitchell and Freeman (1993), Rummell (1951), and Savage and Swetnam (1990) have identified livestock grazing as a major cause in altering the historic fire regimes and increasing fire hazard. Past grazing of the low growing, continuous fine fuel by livestock has displaced the herbaceous plant community with brush and piñon-juniper. The loss of herbaceous ground fuels inhibits the occurrence of low intensity surface fires and fire spread that could control the ensuing brush and tree encroachment. The resulting increase in brush and tree densities supports destructive crown fires.

Shifts in the potential natural plant communities on the Monument are reflected in recent woodland inventories that record a striking departure in expected species composition. Fixed 0.05-acre plots done within the rangeland and woodland sites in 2004 reveal that 60 percent of the



stems are less than 4 inches in diameter and less than 100 years in age. The average stem density is 353 per acre with a range of 60 to 720 stems per acre. This represents an average spacing of 11 feet. These sites are dominated by oneseed juniper at 70 percent, followed by piñon at 30 percent (Borland 2004). The expected natural plant community of the piñon-juniper woodlands on the Monument is around 60 to 100 stems per acre.

These changes in vegetation patterns appear to be the result of differential accumulation of available moisture. Human-induced disturbance, livestock grazing, and fire suppression resulted in reduced herbaceous cover. Exposed bare ground increased, allowing rain water to flow across the interspaces rather than infiltrate where it fell. Water then accumulated in small depressions that provided more water than normal under grass cover so that junipers could become established (Dick-Peddie 1993).

The prevailing natural disturbances of drought and insects continue to dramatically influence the present condition of the vegetative communities within the Monument. Drought conditions have been acknowledged from 1994-1995 to present by meteorologists/climatologists throughout the Southwest. This regional drought has caused trees to become moisture stressed and susceptible to insect invasion and damage. As drought progressed, trees became unable to repel the piñon-bark (*Ips*) beetle with tree pitch. Insect populations of the *Ips* beetle have exploded, permitting them to move onto adjoining trees and woodlands. The smaller encroaching trees (less than 3 inches in diameter) are passed up by the *Ips* beetle; however, the older and larger trees are highly susceptible to their damage, eventually resulting in death. The extent of this outbreak within the Monument is obvious: on the average 88 piñon trees per acre are dead (Borland 2004).

The following ecological site descriptions (Sandy, Savannah, and Foothills), taken from the Sandoval County soil mapping unit summaries, describe the potential natural vegetation that would occur on the rangeland component of

the Monument (USDA, SCS 1987, updated in 1992-1993).

Sandy ecological sites are characterized as having both warm- and cool-season grasses, scattered shrubs, half-shrubs, and forbs. Blue grama and western wheatgrass are co-dominants, with Indian ricegrass and dropseed closely associated. Principal shrubs and half-shrubs include four-wing saltbush, winterfat, and sand sagebrush. Rocky Mountain beeplant is often the most noticeable forb. Broom snakeweed is most common in certain wet years and when the plant community deteriorates from its potential. Potential natural plant communities have about 69 percent bare ground, 12 percent litter, and 15 percent grasses and forbs as an average percentage of the surface area. The overstory is 5 percent shrubs and half-shrubs with 0 percent tree canopy. Under unfavorable growing conditions, the historic potential plant community could produce 325 pounds per acre air dry plant matter while during favorable conditions the site's potential increases to 850 pounds per acre air dry plant matter. The Sandy ecological site fits the Chihuahuan Desert Grassland fire regime classification; however, recent disturbance to the plant community structure and the increasing number and density of shrubs and trees creates a grading effect into the Open and Closed Conifer Woodlands fire regimes. Fire frequency is variable and dependent upon plant community development and/or departure from the historic community and ignition source. Grassland types support fires and could occur in any given year provided the grasses are cured and dry enough to burn. Plant density is a critical factor in the grassland's ability to propagate fire. Heat output is relatively low from grass fuels, so fairly continuous fuels are necessary for fire spread to occur (Brown and Smith 2000). The current fire frequency is between 85 and 120 years due to the age of the larger size trees and recent fire suppression. Historic fire frequencies probably ranged from about 4 to 20 years (Fire Regime II).

Savannah ecological sites are characterized by the NRCS as scattered large tree-type piñons and/or junipers with open grass stands in between.



Understory grasses are dominated by blue grama, Western wheatgrass, Indian ricegrass, and sand dropseed. Piñon ricegrass and pine dropseed may also be found, usually beneath the trees and at the higher elevation ranges on the site. Winterfat and some forbs may occur in significant amounts. Broom snakeweed is most common in certain good rainfall years and when the understory plant community deteriorates from its potential. Reproduction of piñon and juniper is normally very slow and, historically, may have been controlled by natural fire. Tree canopy of the natural potential plant community averages approximately 25 percent. In exceptional cases, a few more or less even-aged ponderosa pines may occur on this site naturally. Reproduction of this species is ordinarily even less evident than that of piñon or juniper, and no more than 1 or 2 percent of the understory is likely to be made up of ponderosa seedlings, even in the absence of livestock grazing. Historic plant communities have about 65 percent bare ground, 15 percent litter, and 18 percent grasses and forbs as an average percentage of the surface area. The overstory is 15 to 30 percent shrubs and half-shrubs and 15 to 30 percent tree canopy. Under unfavorable growing conditions, the historic potential plant community could produce 300 pounds per acre air dry plant matter while favorable growing conditions improve the site's potential to 875 pounds per acre air dry plant matter.

Foothills ecological sites are characterized by the NRCS as a mixed shrub-grassland aspect with scattered oneseed juniper and some piñon trees. The tree component is more prevalent on the cooler, north-facing slopes, while shrubs and grasses prevail on south- and west-facing slopes. Dominant grasses on the north-facing slopes are blue grama, galleta, New Mexico feathergrass, and bottlebrush squirreltail. On the south-facing slopes black grama, little bluestem, sideoats grama, and blue grama are dominant. This site occurs as rolling to steep hills and foot slopes of steep mountains and sideslopes of high mesas. Slopes may range from 2 to 50 percent. This is a transitional area between adjoining Major Land Resource Areas SD-1 and WP-2 as a product of the highly variable soils, slopes, and ex-

posures. Historic plant communities have about 33 percent bare ground, 10 percent litter, and 12 percent grasses and forbs as an average percentage of the surface area. The overstory is about 20 percent shrubs and half-shrubs and 20 percent tree canopy. Under unfavorable growing conditions, the historic potential plant community could produce 375 pounds per acre air dry plant matter while favorable growing conditions raise the site's potential to 750 pounds per acre air dry plant matter.

Historically, the fire regime occurring on the Foothills and Savannah ecological sites was one of frequent mixed severity fires (Fire Regimes I and II). Typically fires occurring on these sites consisted of low intensity surface fires with occasional high intensity stand-replacing fires when higher fuel concentrations were present. The average historic fire return interval is about 28 to 31 years, with a range of 10 to 49 years. These sites are now dominated by piñon-juniper with a grass/forb and shrub understory. The current plant communities fall into the Open and Closed Conifer Woodlands fire regimes. The herbaceous understory is discontinuous and of low productivity; coupled with the small amount of litter, and the number, age and size of trees that are present, the current fire frequency is between 85 and 120 years.

Vegetative response is tied closely to changes in soil structure, function, and productivity. The loss of organic-rich topsoils, decreased plant-available-water (Breshears and Barnes 1999), extreme soil temperatures, and freeze-thaw activity severely impede herbaceous vegetation establishment and productivity (Davenport et al. 1998). Reductions in ground cover cause increased runoff from summer thunderstorms (Reid et al. 1999), with associated increases in erosion (Wilcox et al. 1996a, 1996b, 2003). The processes described above have moved much of the historic natural potential vegetation on the Monument across a plant community threshold that currently favors further establishment and maintenance of oneseed juniper and piñon.

Successful restoration of the rangelands on the Monument to historic natural plant communities



is directly proportional to the site's retention of topsoil. Areas that have experienced severe loss of the organic topsoil would exhibit a slower response to vegetative treatments and prescriptions than similar areas containing higher amounts of topsoil in the system.

Strategies for any vegetative treatments should address the need to minimize any further surface disturbance and/or transport of soils off site. Treatments geared to the reduction of oneseed juniper and piñon pine stems should include

lopping and scattering of smaller diameter stems and branches to provide suitable micro-climates for seed germination, establishment, and survival of seedlings. Since the native seed bank is stored in the soil, its presence and abundance is proportional to the degree of soil loss. It is uncertain whether an adequate native seed bank is present to move treated sites toward their natural potential plant community. To encourage the desired restoration of treated areas, vegetative strategies should include re-seeding with native seeds.















## APPENDIX K

### PREPARERS OF THE PLAN

An interdisciplinary team of BLM specialists from the BLM Albuquerque District, Rio Puerco Field Office has prepared this plan. The following table lists the names and qualifications of the team members.

Name	Assignment	Education	Related Experience <sup>a</sup>
John Bristol	Team Lead; Visual Resources, Wild & Scenic Rivers, Wilderness	BS—Landscape Architecture	BLM/USFS—35 years
Roger Cumpian	Vegetation	BS—Animal Science & Range	BLM—28 years
John Gilmore	Geology, Minerals, Paleontology	BS—Geology	BLM/Industry—27 years
Kent Hamilton	Planning, NEPA Coordination, Social & Economic Conditions	BS—Agricultural Economics	BLM/BIA—45 years
Pamela Herrera-Olivas	Riparian Resources	BS—Biology, MS—Environmental Science	BLM—9 years
Andy Iskra	Wildlife; Threatened, Endangered & Special- Status Species; Riparian Resources	BS—Wildlife Biology	BLM/USFS/NMFS—20 years
Debby Lucero	Lands & Realty, Access & Transportation	BS—Environmental Science	BLM/USFS/NPS—20 years
Connie Maestas	Lands & Realty, Access & Transportation	Associate of Applied Science—Paralegal Studies	BLM—25 years
David Mattern	Soil, Water, Air	BS—Forest Management, MS—Watershed Hydrology	BLM/USFS—20 years
Brett O'Haver	Vegetation, Rangeland Management	BS—Wildlife Biology	BLM/NRCS—26 years
Danny Randall	Recreation, Photography	Natural Resource Experience	BLM—26 years
Todd Richards	Woodlands; Fire Management	BS—Education	BLM/USFS—13 years
John Roney	Cultural Resources	BA—Sociology/ Anthropology, MA—Anthropology	BLM—30 years
Kathy Walter	National Landscape Conservation System Manager; Recreation	BUS—Anthropology, MA—Recreation	BLM/DOD/NPS/HCRC—30 years
M'Lee Beazley	Design, Desktop Publishing, Printing, Photography	Certification—Graphic Design	BLM—21 years
Dawn Chavez	GIS Mapping & Analysis	BA—Geography	BLM—3 years
Greg Homan	GIS Mapping & Analysis	BA—Geography	BLM/Other—19 years
Gretchen Obenauf	Writer/Editor—Final Stand- Alone Plan	BA, MA—Archeology	BLM/BIA/NPS—31 years
Sarah W. Spurrier	Writer/Editor—Draft & Proposed Plan	BA—Psychology, MBA	BLM/Industry—27 years

Note: <sup>a</sup>BIA—Bureau of Indian Affairs, BLM—Bureau of Land Management, DOD—Department of Defense, HCRC—Heritage Conservation & Recreation Service, NMFS—New Mexico Forestry Service, NPS—National Park Service, NRCS—Natural Resources Conservation Service, USFS—U.S. Forest Service







# Appendix A&A

## Acronyms & Abbreviations







## ACRONYMS AND ABBREVIATIONS

ADO	Albuquerque District Office
BLM	Bureau of Land Management
BMP	Best Management Practice
CFR	Code of Federal Regulations
CR	County Road
EA	Environmental Assessment
EIS	Environmental Impact Statement
ESA	Endangered Species Act
FLPMA	Federal Land Policy and Management Act
FR	Federal Register
FS, USFS	U.S. Forest Service
FWS, USFWS	U.S. Fish and Wildlife Service
NEPA	National Environmental Policy Act
NM	New Mexico
NMDG&F	New Mexico Department of Game and Fish
NPS	National Park Service
OHV	off-highway vehicle
R.	Range
RMP	Resource Management Plan
RN	roaded natural (recreation opportunity)
ROS	Recreation Opportunity Spectrum
RPFO	Rio Puerco Field Office
Sec.	Section
SPM	semi-primitive motorized (recreation opportunity)
SPNM	semi-primitive non-motorized (recreation opportunity)



SHPO	State Historic Preservation Officer
SR	State Road
SRP	Special Recreation Permit
T.	Township
T&E	threatened and endangered (plant or animal species)
U.S.C.	United States Code
USDA	U.S. Department of Agriculture
USDI	U.S. Department of the Interior
VRM	visual resource management
WSA	wilderness study area











## GLOSSARY

authorized user	A person or entity (including a BLM staff member) with formally approved access to a BLM road as granted by law, a live-stock grazing permit, an oil and gas lease, a right-of-way grant, or other use agreement. Under the BLM Roads Policy (Instruction Memorandum NM-95-031), the term does not apply to the general public.
collector road	A BLM road that usually provides primary access to large blocks of lands and connects with, or is an extension of, a public road system.
easement	An authorization for a non-possessory, non-exclusive interest in lands that is usually granted for a specific use. This authorization specifies the rights of the holder and the obligation of the BLM to use and manage the lands in a manner consistent with certain terms.
inholding	A term used to refer to non-Federally owned lands and interests in lands within the Monument boundary. Presidential Proclamation 7394 reserved these as part of the Monument upon acquisition of title by the United States. These lands contain resources similar or complementary to those values the Monument was established to protect, and the Monument can be more effectively managed in conjunction with these inholdings. These areas are desirable and recommended for acquisition.
Monument	<p>The term used to refer to a land area encompassing approximately 5,402 acres, established under Presidential Proclamation 7394 as Kasha-Katuwe Tent Rocks National Monument. Only part of this acreage is Federally owned and managed by the BLM (4,124 Federal and 1,278 inholding surface acres; 4,565 Federal and 837 inholding mineral acres; surface and mineral ownership acreages do not always correspond). Details of land ownership are shown on Table 1-1 and Map 3.</p> <p>Land use decisions considered in and established through this Plan may include management measures that the BLM has applied to Federal and non-Federal acres. These decisions/measures can be implemented only where the lands are (1) Federally owned (acquired by sale or exchange from willing property owners), or (2) where the BLM has negotiated legal management agreements with willing property owners.</p>



North Edgeholding	<p>The term used to refer to non-Federal lands and interests in lands, a part of which adjoins the north Monument boundary (see Map 2). The North Edgeholding consists of 9,268 surface acres. The minerals, except gold, silver, and quicksilver/mercury (which are Federally owned), are also in non-Federal ownership. These lands contain resources similar to or complementary to those values the Monument was established to protect, and the Monument can be more effectively managed in conjunction with this edgeholding. This area is desirable and recommended for acquisition. [Note: This area has also been referred to as the Cañada de Cochiti Grant, the Young Ranch, or the University of New Mexico (UNM) property. The surface estate is now owned by the State of New Mexico.]</p>
off-highway vehicle	<p>Any motorized vehicle capable of, or designed for, travel on or immediately over land, water, or other natural terrain; the term includes off-road vehicles but is broader.</p>
Planning Area	<p>The term used to refer to Federal and non-Federal lands and interests in lands considered in the land use decisions of this RMP. These lands and interests in lands include (1) the Monument (5,402 surface acres, including 4,124 Federal acres and 1,278 acres of non-Federal inholdings; mineral ownership is 4,565 Federal acres and 837 acres non-Federal inholdings); (2) the Southwest Acquisition (965 Federal acres, both surface and minerals); (3) the North Edgeholding (9,268 acres surface and minerals other than gold, silver and quicksilver/mercury), and (4) other valid existing rights. The Planning Area totals 15,635 acres.</p>
primitive road	<p>A BLM two-track road that has been created by vehicle traffic and does not require engineering standards. Some are cross country and receive little use, while others are regularly traveled.</p>
resource road	<p>A BLM road that provides point access, connects to a collector or local road, and serves a smaller area. Location and design of these roads are governed by environmental compatibility and minimal construction and maintenance costs.</p>
“retire” livestock grazing	<p>Presidential Proclamation 7394 states, “. . . The Secretary of the Interior shall retire the portion of the grazing allotments within the Monument, pursuant to applicable law . . . .” It is unclear what the word “retire” means in this case, as it is not a term typically used in relation to grazing allotments, leases, or permits. At first reading, the term could imply “cancellation,” which means “a permanent termination of a grazing permit . . . lease . . . or other grazing authorization . . .” (43 CFR 4100.0-5).</p> <p>However, the Proclamation continues, “. . . unless livestock grazing will advance the purposes of the Proclamation.” Based on this statement, “retire” could refer to a “suspension,” meaning</p>



“the temporary withholding from active use, through a decision issued by the authorized officer or by agreement, of part or all of the permitted use in a grazing permit or lease” (*ibid.*).

The term “discontinued” is used in this document and related material, meaning that the permitting of grazing on the Monument’s grazing allotments will be discontinued unless it advances the purposes of Proclamation 7394. Ways in which grazing may serve these purposes are suggested in the document.

right-of-way

The legal right to cross the lands of another; the strip of land for a road, railroad, or power line.

Southwest Acquisition

The term used to refer to a 965-acre parcel of land recently acquired by the Federal government and now managed by the BLM. Decisions made in this Plan can be implemented for this parcel. [Note: This parcel was referred to in the Draft RMP/EIS as the “Southwest Edgeholding.”]







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## **ERRATA SHEET 2**

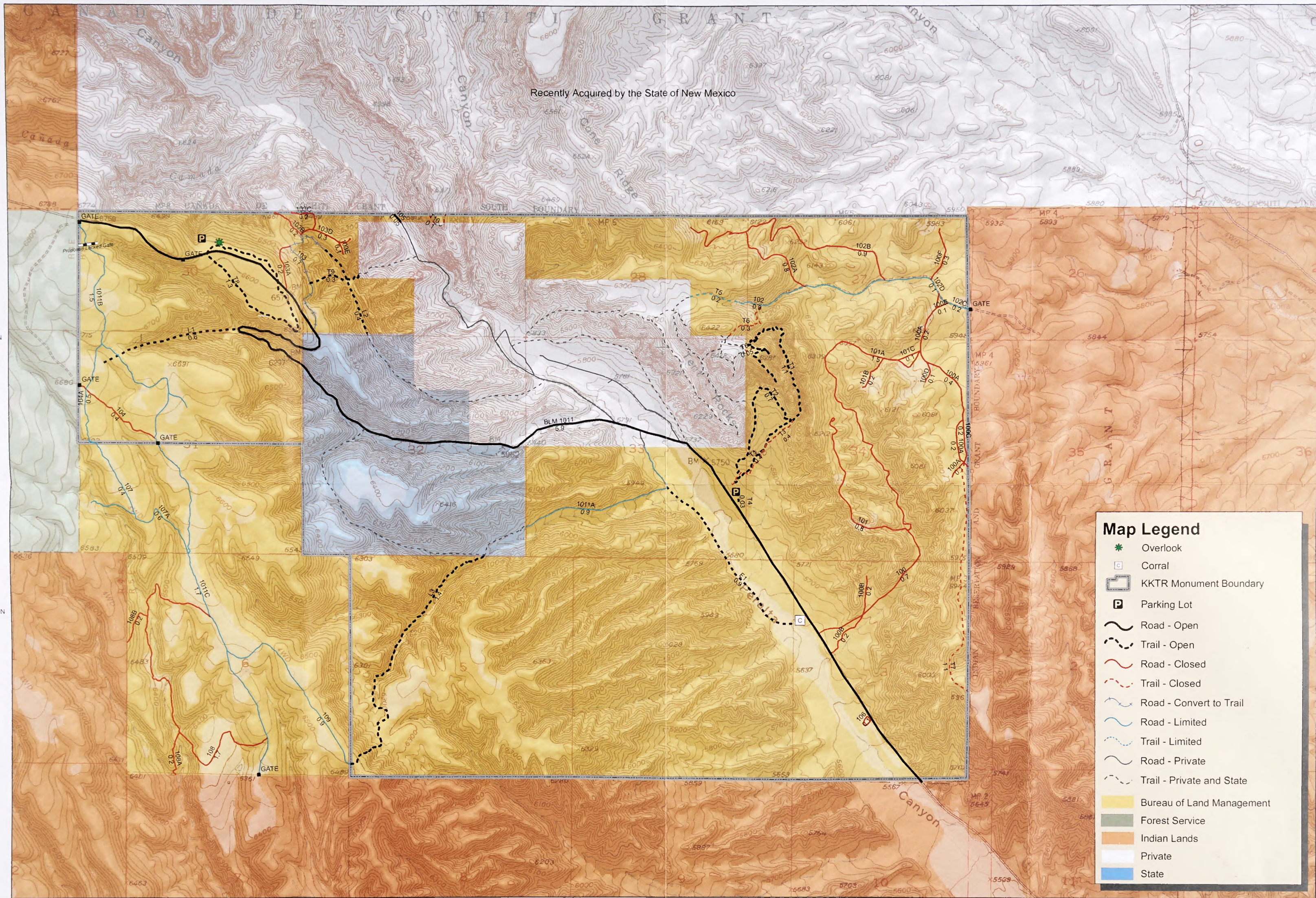
Dear Reader letter paragraph 2 should be replaced as follows:

The attached Record of Decision (ROD) approves both land use planning decisions and implementation decisions for management of the Monument. The ROD serves as the final decision for the land use planning decisions described in the attached Approved RMP, and these decisions became effective on the date the ROD was signed. However, some of the decisions are implementation-level decisions that require no further authorization requiring public involvement prior to their implementation. Therefore, they may be appealed under the Department of the Interior's appeal regulations (43 CFR Part 4). Any party adversely affected by the implementation decisions as identified in Chapter 2 of the RMP may appeal within 30 days of receipt of this decision in accordance with the provisions of 43 CFR Part 4.4. Publication of the Notice of Availability for the ROD/RMP in the Federal Register will be considered the date of receipt of this decision.





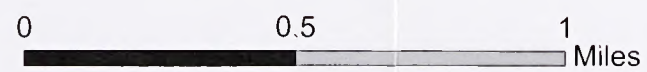




**Map 4**  
**Roads and Trails**



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Projection: UTM Zone 13  
Datum: NAD 1983

May 7, 2007



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